

LEHIGH ALUMNI BULLETIN



SCIENCE in the DEEP

By Dr. Maurice Ewing



PROUD HERITAGE

By Ward-Pasolli

February 1937



*...one of the first
pleasures of 1937*



Enjoy **Chesterfield**

*—for the good things
smoking can give you*



LEHIGH ALUMNI BULLETIN

contents

Infra-red cover photograph by David McCaa

Growth— <i>Cadwallader Evans</i>	5	Bridging the Golden Gate	13
A guest editorial		The story of the construction of the longest suspension span in the world	
Proud Heritage— <i>Ward-Pasolli</i>	6	The Sport Review	14
An historical study of Lehigh's background at West Point		Lehigh Clubs	16
Science in the Deep— <i>Dr. Maurice Ewing</i>	8	On the Road— <i>Wm. A. Cornelius</i>	17
The first account of the latest gravity expedition in the West Indies		An article on the progress of the Chemistry Laboratory drive	
Cross Cutting the Campus	10	Lehigh Men in the News	18
A glance at the many activities of student in their daily work		The Bulletin Presents ..	20
The Prexy's Pen— <i>Dr. C. C. Williams</i>	12		
The first of a series of articles by the President of the University			

editorial staff

ROBERT HERRICK, '34, EDITOR
Wm. A. Cornelius, '89, Man'g Editor

COMMITTEE
Floyd W. Parsons, '02, *Chairman*
Robbins Publications, Inc.

Kyle S. Crichton, '17, *Collier's*
Albert W. Hicks, Jr., '23, *Cosmopolitan*

M. A. DeWolfe Howe, '86, *Atlantic Monthly*, retired
Geo. F. Nordenholt, '14, *Product Engineering*

officers and trustees

Cadwallader Evans, Jr., '01.....*President*
Stewart J. Cort, '06.....*Vice President*
Robert B. Honeyman, '20.....*Vice President*
Robert S. Taylor, '95.....*Treasurer*
Alpha A. Diefenderfer, '02.....*Archivist*
Wm. A. Cornelius, '89.....*Exec. Secretary*

Alan C. Dodson, '00.....1931-37
Earle F. Johnson, '07.....1932-38
Alexander Potter, '90.....1933-39
Robert Faruham, '99.....1934-40
Morton Sultzter, '12.....1935-41
Frank B. Bell, '97.....1936-42

Published monthly, October to June, inclusive, by the Alumni Association of Lehigh University, Inc., Alumni Memorial Building, Bethlehem, Pa. Printed by the Lehigh Printing Corp., Bethlehem, Pa. Entered as second-class

matter at Bethlehem, Pa. Post Office. Subscription price, \$3.00 per year. National advertising representative: The Graduate Group, Inc., New York, Chicago, Detroit, San Francisco, Los Angeles and Boston.

DRAVO CORPORATION



GALLIPOLIS LOCKS AND DAM, OHIO RIVER

Under construction by *The Contracting Division, Dravo Corporation for War Department,
Corps of Engineers, United States Army.*



S. P. FELIX, '03	W. P. BERG, '17	R. W. MARVIN, '27	E. V. TWIGGAR, '31
J. D. BERG, '05	E. H. ZOLLINGER, '18	PAUL G. STROHL, '27	ROBERT A. NISBET, '33
E. T. GOTT, '06	F. J. LLOYD, JR., '23	G. W. FEARNside, JR., '28	J. B. BAKER, III, '34
A. S. OSBOURNE, '09	B. E. RHODES, '23	STANLEY B. ADAMS, '29	J. K. BEIDLER, '34
L. C. ZOLLINGER, '09	J. A. BISSINGER, JR., '26	E. M. BACHTTELL, '29	W. A. ROBINSON, '34
V. B. EDWARDS, '12	H. CHARLES HESS, '26	C. W. GRANACHER, '29	L. P. STRUBLE, JR., '35
GEO. F. WOLFE, '14	W. W. ARMSTRONG, '27	R. P. KLINE, '30	P. K. WRIGHT, '36

GENERAL OFFICES:

DRAVO BUILDING, PITTSBURGH, PA.

LETTERS

STILL-HILDRETH OSTEOPATHIC SANATORIUM
Macon, Missouri
John C. Button, Jr., D. O.

January 20, 1937.

Dear Mr. Herrick:

Have just received the BULLETIN for the first time, and see what I've been missing all these years. It's a fine piece of work, editorially, artistically and generally.

Enjoyed Morhart's article especially, even if he was my roommate once upon a time.

Sincerely,

JOHN C. BUTTON, JR., '32.
Staff Physician.

CASE ALUMNI ASSOCIATION
Case School of Applied Science
University Circle
Cleveland, Ohio

November 12, 1936.

Dear Mr. Herrick:

Thanks very much for the copies of the LEHIGH ALUMNI BULLETIN. I appreciate very much your courtesy and hope that I can be of service to you one of these days.

The Board of Trustees is being reorganized and the minute my secretary called Mr. Corneli's article to my attention I decided to have a copy placed in the hands of those men who will have a part in making our changes. In fact I would like very much to reprint this article in the November issue of the CASE ALUMNI to add a little emphasis to our point. I will proceed and of course give proper credit to the LEHIGH BULLETIN.

I understand from our Athletic Director Ray Ride that Case and Lehigh have just signed a contract for 1938 and 1939. I am pleased to hear this and personally feel these games will mark the beginning of a very friendly rivalry. We here at Case have felt that this year's game was a fine beginning even though we lost to your better team.

Sincerely yours,

CHARLES F. CHAPMAN,
Secretary, Case Alumni Association.

GENERAL ALUMNI ASSOCIATION
Temple University
Philadelphia, Pa.

Office of the Executive Secretary

January 19, 1937.

Dear Bob:

Just a word of congratulations upon your being elected "editor." You certainly deserve it. The BULLETIN is "epazootle!"

I certainly enjoyed the last issue and this one. Okeson's article was "tops."

Regards,

RAY BURKLEY,
Alumni Secretary,
Temple University.

GEORGE W. HARRIS
12 Holland Terrace
Montclair, N. J.

December 28, 1936.

Dear Wacie:

As Editor of the BULLETIN, I judge you and associates have a definite policy in regard to the publication and I would certainly appreciate it should you be good enough to give me a tip now and then which would also help me the better to work along with your ideas. Seems to me the December issue was the climax of recent fine LEHIGH ALUMNI BULLETINS.

Most sincerely yours,

GEORGE W. HARRIS.

LEONARD S. HORNER
Industrialist
870 Prospect Street
New Haven, Conn.

January 25, 1937.

Dear Bob:

The November issue of the BULLETIN is the best I have ever read. Articles like that of Dr. J. S. Long are splendid. Tell Dr. Long to send me the name of his agents Devoc & Reynolds Company in New Haven. If there is one thing I would like it is a decent kind of paint to put on my house in New Haven, because no paint that has gone on that house in the past fifteen years will stay and look decent for more than, let's say, eighteen months, and I can't afford to paint this house more than once every three years, and I would like it to run five, and still look decent.

The alumni of Lehigh are interested in what their fellow alumni are doing to make this world a better place to live in and articles like Long's will appeal to many. There are probably hundreds of such men who are doing things who can write equally as interesting articles and I hope that you will get as many such to write for you.

Cordially yours,

LEONARD S. HORNER, '98.



In Praise of France



"The morning comes—I don't know a pleasanter feeling than that of waking with the sun shining on objects quite new, and (although you have made the voyage a dozen times), quite strange . . . all seems as gay and as comfortable as may be—the sun shines brighter than you have seen it for a year, the sky is a thousand times bluer, and what a cheery clatter of shrill quick French voices comes up from the court-yard under the windows!"

—William Makepeace Thackeray.

★★ A country beloved by men like Sterne and Thackeray, Charles Dickens and Henry James . . . Stevenson went through its inland waterways in a canoe and over its mountain passes on foot, to produce two little masterpieces, "An Inland Voyage" and "Travels with a Donkey."

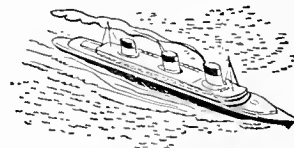


★★ A country whose written history runs back to Julius Caesar and his imperial legions . . . whose first literature was written in the suave Latin of the Silver Age . . . whose territory is alive with deep-rooted memories of the past . . . Gothic cathedrals, medieval walled

towns, Renaissance chateaux, the ordered elegance of 18th-century architecture.

★★ A country of many countries . . . level Picardy, bathed in pearly light . . . opulent Normandy . . . wild and wooded Auvergne . . . tranquil, sunlit Provence . . . the austere Pyrenees . . . each with its special gifts of hospitality . . . the wines of Bordeaux, of Burgundy, of Champagne . . . a hundred cheeses . . . a hundred sauces . . . an epicure's Eden.

★★ A country whose coastline spaces smart bathing beaches and ancient fishing ports . . . Deauville and Harfleur . . . La Baule and St.-Nazaire . . . Biarritz and Bordeaux . . . Toulon and Cannes . . . whose deep-water mariners have



sailed the seven seas for centuries . . . whose maritime tradition finds its culmination in the magnificent streamlined *Normandie*, world's greatest ship, and her companions in the French Line fleet.

PARIS—1937

EXPOSITION INTERNATIONALE

Once again the nations of the world send the finest products of their artists and engineers to a dazzling world's fair in Paris. Special reductions on railroads, air-lines, steamships, for exposition visitors. Ask your Travel Agent.

French Line

610 FIFTH AVENUE (ROCKEFELLER CENTER), N. Y.



NORMANDIE, Mar. 3 • ILE DE FRANCE, Feb. 20 • PARIS, Feb. 27
Scheduled flights available via Air-France to every capital in Europe

On many of Americas' big undertakings

Whatever the magnitude of the modern construction job — below or above the ground — TWIN CITY ENGINES are adequate to all power demands. Their heavy-duty "unit" construction — simple operation — low fuel and upkeep cost — and countless exclusive advantages, have earned them world-wide recognition for CAPACITY and ECONOMY. A size for every job — 25 to 155 HP.

We are also leaders in the manufacture of structural steel and are pioneers in the tractor field. There is a type of MM Twin City Tractor for every farm and industrial need. Each is a model of "balanced weight and power."

Write for complete information on the MM product in which you are interested.

MINNEAPOLIS-MOLINE POWER IMPLEMENT COMPANY

W. C. MacFarlane, '04, President
Minneapolis, Minnesota



Growth

A "Guest Editorial" this is called, and the president of the Alumni Association is invited to take pen in hand and compose it.

He is told that he is a representative of that most potent body, "THE ALUMNI," and must voice their desires, their needs, their hopes and aspirations.

Obviously he can't do this; he is too busy with his own job, so he will attempt to tell you what he is doing as your president, and what your association is attempting to do for your university.

When I joined the Association thirty-five years ago, the alumni were just beginning to realize that this is "their" university. The feeling has grown with each passing year, and with the passing away of those who were brought into connection with the University by its "Founder."

It is your university and mine, and it will grow and increase in usefulness to the nation only if you and I and others like us, keep it alive and growing. The growth need not be in numbers. In fact, I sense that many of you feel that it is now too large for its clothes, and this feeling I am attempting to convey to those in control.

We alumni realize that there must be growth, else decay will begin as it always does in living things. In Lehigh's case, as in that of most educational institutions, the op-

portunities for growth without increase in numbers are almost limitless.

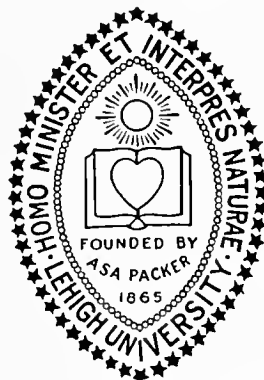
The pressing need today is for more room for the chemistry laboratories. Just what this need is, you can visualize when you realize that the total number of students in chemistry and chemical engineering has increased from about 25 in 1900, and 52 in 1910 to 324 in 1936. These laboratories, however, served many more than those enrolled in chemistry, and the increase in this demand upon the laboratories has been almost as great, from about 150 in 1900 to 433 in 1936.

The character of physical plant plays an important part in the competition for the best type of entering students. We have met it in the Packard Laboratories for Mechanicals and Electricals, and in the Fritz laboratory for the Civils, and we must now meet it for the chemists, not only with laboratories for undergraduates, but with special facilities for research work and for graduate study.

We need today additional space in the Chemistry laboratory, and we need \$100,000.00 to provide it. You will meet this need as you have the others, I am sure, and Lehigh will continue to grow in usefulness.

CADWALLADER EVANS,

*President, Lehigh Alumni
Association.*



THE alumni and friends of both Lehigh University and the United States Military Academy at West Point will be much interested in knowing of the parallels between these two engineering schools, and especially in knowing how the one has influenced the development of the other—particularly through Dr. Henry Coppee, U. S. M. A. '45, Lehigh's first president.

The Military Academy, founded in 1802, lays claim to being the first engineering school in the United States—a "military" engineering school, for not only were all the other colleges of the country at the time "classical schools," but the early superintendents of the Academy were engineer-officers.

However, Rensselaer Polytechnic Institute, founded in 1842, is generally credited with being the first "civil"—as contrasted with "military"—engineering school in the country.

The distinctive principles of West Point training may be summed up in the high academic standards required and obtained through a keenly competitive system among the cadets, in a stressing of the fundamentals of the sciences as compared with the teaching of details, and in the rigid discipline imposed upon

From Dr. Coppee came West Point tradition to aid Lehigh's early years

the members of the cadet corps or student body.

It is our belief that Lehigh University is distinctive in that it was the only "civil" engineering school in the United States which started off, at its very founding, with a setting-up of academic standards and a discipline of the quality of those at West Point, insofar as they could be applied in a new school.

And, to develop the interesting picture of this background, we follow with some notes acquired from various mentioned sources, together with a few personal observations.

To begin, it is well-known that Lehigh was founded in 1865, immediately at the end of the Civil War and one of the first acts—and perhaps the most important one—of the founders, was to select the first president of the institution. Here we are indebted to Mrs. Catherine Drinker Bowen, whose *History of Lehigh* explains that, "... Henry Coppee was brought from the chair of Belles Lettres

at the University of Pennsylvania to be the president of Lehigh.

"Dr. Coppee was a man of the broadest education and experience. Graduated from Yale in 1840, from West Point in 1845, with three years of engineering experience in between, he served in the Mexican War as a second lieutenant and captain. An assistant professorship in geography, history, and ethics at West Point, coupled with his ten years' teaching at Pennsylvania, gave him more than ample training for the great work he was to do at Lehigh."

Mrs. Bowen later says of Dr. Coppee: "He was very proud of his military record, and to the end of his days preserved a military bearing which was, to quote a student of the seventies, 'impressive'."

Incidentally, Dr. Coppee was first of Lehigh's original faculty of five professors to teach a student body of forty.

The first Lehigh president, he had been appointed to the Military Academy from Georgia and graduated with the Class of 1845 of which Fitz-John Porter was a member.

During his sojourn at West Point, he must have known the following who were cadets and members of the corps at the time he was: W. S. Rosecrans, '42; Jas. Longstreet, '42; U. S. Grant, '43; A. Pleasonton, '44; G. B. McClellan, '46, and T. J. Jackson, '46.

But now, what is our knowledge of direct evidence that the roots of Lehigh were from West Point?

When we entered Lehigh—one transferring from a state university, the other from prep school—we ran squarely into a unique math system and in it found something we had never heard of or seen before—the rotating section—where, at determined intervals of a few weeks, each section of the class moved to a new teacher, so that by the end of the term, each section would have had several different teachers.

We soon learned that the math course was a basic one at Lehigh, incorporating rigid discipline as well as thorough instruction in mathematics, to the end that the course would determine the fitness of students to pursue engineering as a career.

Undoubtedly it dates back to the system of instruction as instituted by General Sylvanus Thayer, superintendent of the Military Academy from 1816 to 1833. It was a system which no one but a West Pointer such as Dr. Coppee—and a teacher, at that—would have considered desirable to introduce in a new college or university, the opportunity being open to select from a number of different systems of teaching.

It is understood that this system of

Proud

U.S.M.A.

Heritage

teaching mathematics at Lehigh for many years, has since been abandoned for reasons seemingly good and sufficient to those in authority, and it is not the purpose of this article to express an opinion upon the soundness of the reasons.

The next point has to do with the Lehigh diploma which has evoked interest both in its size and wording; in these respects it is unlike most college diplomas. This was somewhat puzzling to us at first until a trip through the library at West Point revealed framed diplomas of Civil War generals which were almost identical with those from Lehigh.

The explanation came later from Dr. Henry S. Drinker, '71, president-emeritus of Lehigh, who remarked that the similarity was quite natural. When Dr. Coppee had to have diplomas made for his first class, he sent his own down to the engraver with instructions to copy it, necessary changes being indicated.

Even the sidelights of this interesting parallel of educational institutions bring more relationships.

Many will recall the series of personal memoirs of Civil War generals, published in the 80's—those of Grant, Sherman, Sheridan, McClellan, etc. One of the lesser known of these writings is *Reminiscences of Winfield Scott Hancock* by his wife, published in 1887.

According to no less an authority than General U. S. Grant, General Hancock "... stands the most conspicuous figure of all the general officers who did not exercise a separate command. He commanded a corps (2nd) longer than any other one and his name was never mentioned as having committed in battle a blunder for which he was responsible."

In the course of the *Reminiscences*, Mrs. Hancock says of their only son, Russell, "His academic studies were pursued at New Haven, Conn., under the tutelage of Dr. Russell. The bent of his mind was in the direction of mechanics and engineering, and, with the view of cultivating this talent he was sent to Lehigh University at Bethlehem, Penna., but was obliged to abandon his studies, in consequence of his health, before the completion of his course. . . ."

Russell Hancock is listed in the Alumni Directory as a non-graduate of the class of 1872. As Dr. Drinker was asked some time ago about his college mate, and as he did not recall him, perhaps Russell's stay at Lehigh was very short.

There seems to be no doubt about the fact that a man of Gen. Hancock's ability and wide contacts would not have sent his only son to a "green" school, less than three years old, unless he had the very utmost confidence in its faculty.

By Arthur Ward, '13 and Emil G. Pasolli, '22

The mutual esteem in which these two leaders must have held each other—one the teacher, the other the soldier—began in cadet days, for General Hancock was of the class of 1844. That it continued to the end of their days will be apparent from the fact that Dr. Coppee was called upon to deliver an address on Hancock's life at the Memorial Meeting of the Council of the Military Service Institution at Governor's Island, New York, on February 25th, 1886, many of the nation's leaders being present. General Hancock had been President of this Society from October 1, 1878 until his death on February 8, 1886.

But what of West Point? And what of Thayer whose supervision of the Academy apparently had such an effect upon Lehigh?

It is true that the United States Military Academy was founded by Act of Congress, March 16, 1802, and opened with 10 cadets on July 4th of that year but it had many years of strife and uncertainty ahead of it.

Here we may turn appropriately to General Samuel E. Tillman, W. P. '69, who served the Military Academy longer than any other officer as professor of chemistry, mineralogy and geology as well as superintendent.

General Tillman has said, "You know that we date the birth of the Academy at 1802, but really it did not amount to much until 15 years later; the Secretary of War, Curtis, in Madison's first administration was hostile to the Academy throughout his service and in no way favored it; it actually went out of existence for a short time in 1810. . . ."

"In 1817, with the advent of General Thayer, our great superintendent, the

Academy really became an institution. Almost immediately thereafter, it became the subject of attack, both in Congress and elsewhere."

And the General's remarks are proved by history which records that state legislatures, United States congressmen and representatives and other high officials created such a furore that the life of the Academy was often jeopardized. But the success of its graduates in the Mexican War stilled the criticism until the Civil War and from that time on it was a well accepted institution.

We are indebted to Robert Fletcher (West Point, '68) for the following insight on General Thayer, who so greatly affected the policy and methods of training and education at West Point that he is referred to by all West Pointers as the 'Father of the Military Academy.' "He had a remarkable grasp of the subjects pertaining to civil as against military engineering—to work for construction rather than destruction. Meantime he was free to talk about his policy and methods in developing the system of training and education at West Point.

"The rigid disciplinarian appeared in
(Continued on page twenty-one)



Lehigh



Science

IN THE DEEP

BY DR. MAURICE EWING

with ROBERT HERRICK

In the cold drizzle of the morning of November 4, 1936, the S. S. *Cristobal* moved from her New York docks where disgruntled stevedores, in the middle of a strike, had begrudged her sailing. And somewhere in Southern waters the United States submarine *Barracuda* was churning to Coco Solo, Canal Zone, where science and the Navy were to cooperate in an expedition in one of the ocean's greatest depths in this section of the globe.

Down in the hold of the *Cristobal* were packed carefully the crystal clock and pendulum apparatus upon which depended the success of the expedition; instruments calculated to measure to an accuracy of about two parts in a million the force of gravity in the ocean's depths around the West Indies.

Why gravity readings? And why the West Indies? Well, behind these natural

the U. S. Coast and Geodetic Survey.

The third member of the expedition, Dr. H. H. Hess, instructor in geology at Princeton, was to follow at a later date.

But let us survey for a moment, the purpose of the expedition.

Science has always been reduced to speculation as to the causes for major geologic changes in the face of the earth such as the formation of mountain chains.

Many geologists believe that the unbalanced condition of the crust of the earth, shown to exist in the East Indies by the gravity measurements of Dr. F. A. Vening Meinesz may eventually offer some definite information about the mechanism involved in the changes.

Dr. B. L. Miller, head of the department of geology at Lehigh University, to whom I am indebted for his interest and cooperation, says with regard to this.

"For many years geologists have been engaged in deciphering the record of past events as preserved in the rocks. This has been done by countless observations of the strata exposed at the surface of the continental land masses, supplemented, in certain places, by data obtained in mines and deep drillings. The geologist has sought this information in the interests of both pure and applied science. Some of our conclusions based on observations of conditions on only one-quarter of the earth's surface have always been regarded as unsatisfactory. As the geologist has worked, stronger and stronger has grown the desire for exact rather than theoretical knowledge of the strata beneath the ocean basins where, until recently, almost nothing was available. It has therefore been a source of great satisfaction to have physics come to the support of geology in the investigation of some of the fundamental geologic problems. In various ways the physicist can obtain information of the character of the rocks beyond the field of the geologist. Already physicists have rendered most effective service in this borderland science of geophysics.

"In the recent gravity expedition much has been added to our knowledge of the conditions of certain portions of the oceanic basins where heretofore almost nothing has been known. When the data have been calculated it is confidently believed that they will prove extremely useful in our study and interpretation of earthquake and volcanic phenomena as well as the major deformations of the earth's crust."

Until the development of the pendulum apparatus of Dr. F. A. Vening Meinesz of the Netherlands geodetic commission, it was impossible to measure gravity at sea with sufficient accuracy for the purpose.

In 1923, Dr. Meinesz perfected apparatus with which he could make measurements of gravity in a submerged submarine and since that time he has made numerous expeditions including a voyage around the world near the equator, has established about 600 stations, and

has added very much valuable information to our knowledge of the figure of the earth.

In the course of his work, he discovered a region in the Dutch East Indies in which the value of gravity departed from the normal value by an amount much greater than had ever before been observed.

With the assistance of the navy of the Netherlands, he conducted an extensive survey of gravity in the waters adjacent to the East Indies and accurately mapped that region in which the abnormal values of gravity are found.

In an area of about 2,000 miles by 80 miles which lay on the convex side of the arc of islands forming the East Indies, he found the force of gravity to be less than normal by as much as 250 parts in a million.

The finding indicated that the crust of the earth in this strip was not heavy enough to be in equilibrium with adjacent portions of the crust and was accorded much interest by geologists and geodesists. It was believed to have definite connection with the zone of intense volcanic and earthquake action in that region.

Dr. Meinesz had recorded two stations in the West Indies in the course of his round-the-world cruise and these indicated that a like condition might exist over a large area there.

The probability of finding these abnormal values of gravity in the West Indies was increased by the geological similarities between the two groups of islands and our expedition was charged with the interesting work of checking on this possibility and mapping the area both in soundings and for gravity.

An additional feature of our expedition was the use of a crystal clock, electrically controlled, rather than a chronometer. This instrument, produced for us by the Bell Telephone Laboratories, had been designed to reduce the error in time measurements to a negligible point. It was the maiden trip for this equipment and it was constantly checked against Arlington time signals.

So when the *Cristobal* docked at Coco Solo we found the S. S. *Barracuda* already in the harbor and immediately we turned to the business of unloading some two tons of equipment and reloading it on the submarine.

We received a most cordial welcome at the Canal Zone and lived at the bachelor officers' quarters at the submarine base. As there is additionally an army base and a naval air base there, it represents an interesting community of officers and they proved to be most gracious hosts.

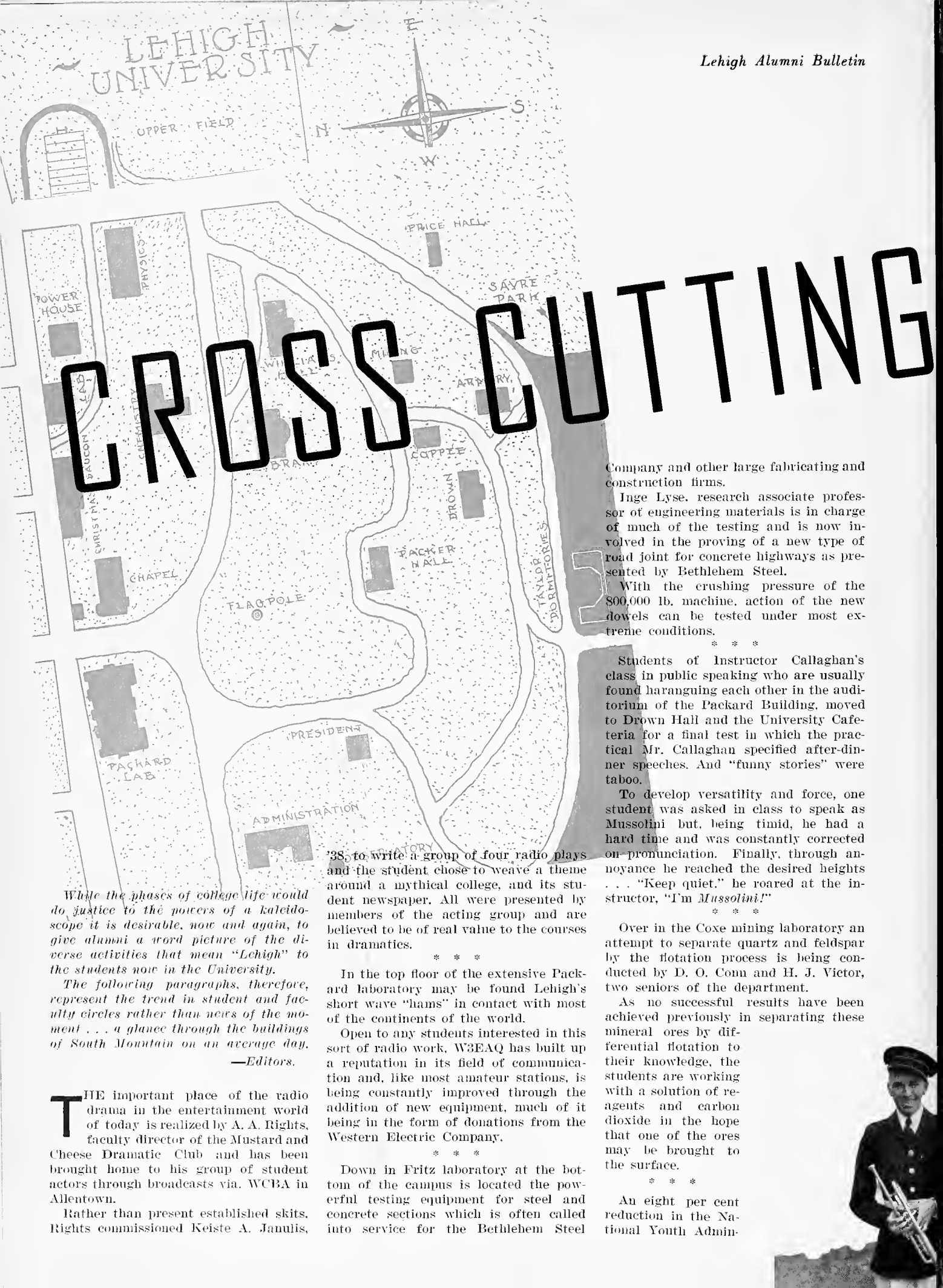
The *Barracuda* had just returned from Honolulu where she had been with the Pacific fleet and was on her way to Philadelphia to be decommissioned after seeing 13 years of service. Thus the Navy had combined utility with necessity by placing her at our disposal for the expedition.

In order to appreciate the size of the
(Continued on page nineteen)



questions lay a problem and a hope that the results might be of significance in the study of earth structure. And especially was the project vital to Lieut. A. J. Hoskinson, hydrographic and geodetic engineer of the United States Coast and Geodetic Survey and to me as we sailed that morning on the *Cristobal*.

It was a cooperative venture between the committee on geophysical investigation of ocean basins of the American Geophysical Union and the Hydrographic Office of the U. S. Navy. Important support and assistance had been given by the American Philosophical Society and



CROSS CUTTING

Company and other large fabricating and construction firms.

Inge Lyse, research associate professor of engineering materials is in charge of much of the testing and is now involved in the proving of a new type of road joint for concrete highways as presented by Bethlehem Steel.

With the crushing pressure of the 800,000 lb. machine, action of the new dowels can be tested under most extreme conditions.

* * *

Students of Instructor Callaghan's class in public speaking who are usually found haranguing each other in the auditorium of the Packard Building, moved to Drown Hall and the University Cafeteria for a final test in which the practical Mr. Callaghan specified after-dinner speeches. And "funny stories" were taboo.

To develop versatility and force, one student was asked in class to speak as Mussolini but, being timid, he had a hard time and was constantly corrected on pronunciation. Finally, through annoyance he reached the desired heights . . . "Keep quiet," he roared at the instructor, "I'm Mussolini!"

* * *

Over in the Coxe mining laboratory an attempt to separate quartz and feldspar by the flotation process is being conducted by D. O. Conn and H. J. Victor, two seniors of the department.

As no successful results have been achieved previously in separating these mineral ores by differential flotation to their knowledge, the students are working with a solution of reagents and carbon dioxide in the hope that one of the ores may be brought to the surface.

* * *

An eight per cent reduction in the National Youth Admin-

While the phases of college life would do justice to the powers of a kaleidoscope it is desirable, now and again, to give alumni a word picture of the diverse activities that mean "Lehigh" to the students now in the University.

The following paragraphs, therefore, represent the trend in student and faculty circles rather than news of the moment . . . a glance through the buildings of South Mountain on an average day.

—Editors.

THE important place of the radio drama in the entertainment world of today is realized by A. A. Rights, faculty director of the Mustard and Cheese Dramatic Club and has been brought home to his group of student actors through broadcasts via. WCBA in Allentown.

Rather than present established skits, Rights commissioned Keiste A. Janulis,

38, to write a group of four radio plays and the student chose to weave a theme around a mythical college, and its student newspaper. All were presented by members of the acting group and are believed to be of real value to the courses in dramatics.

* * *

In the top floor of the extensive Packard laboratory may be found Lehigh's short wave "hams" in contact with most of the continents of the world.

Open to any students interested in this sort of radio work, W3EAB has built up a reputation in its field of communication and, like most amateur stations, is being constantly improved through the addition of new equipment, much of it being in the form of donations from the Western Electric Company.

* * *

Down in Fritz laboratory at the bottom of the campus is located the powerful testing equipment for steel and concrete sections which is often called into service for the Bethlehem Steel



THE CAMPUS

directed through the placement office, has necessitated the dropping of several men from part-time jobs on the campus.

Through the efforts of Director Morgan, however, several of the men whose financial condition had improved were asked to volunteer their resignations and thus a general wage cut was avoided.

* * *

Lehigh men have always been proud of the trees on the campus of their Alma Mater, and probably no one tree was more easily recognized than the 70-year-old oak that stood between the flagpole and Packer Hall.

This month it became a thing of the past as a campus crew cut it down after efforts to save it from disease had failed. Although its absence can be noted, the younger trees in the central campus have grown to such heights that there is no change in the beauty of this spot.

* * *

After agitation for years by the Brown and White, undergraduate newspaper, a student concert-lecture committee was named to secure prominent speakers and artists for Lehigh performances.

Financed through the student activities fee and popular priced tickets to the public, the committee was able to book Alexander Woolcott, H. V. Kaltenborn, Blanche Yurka, Dr. Wm. Beebe, and Conrad Thibault.

Due to Dr. Beebe's illness, the schedule was rearranged and to date the first three have appeared in the Broughal High School auditorium, just off the campus. Student acclaim seems to insure the continuation of the project.

Additional cultural performances have been held in the Packer Chapel on Sundays with no admission charge. Among the latest of these was a concert by the Liberty High School Symphony Orches-

Left: Gilbert Cardwell and Radford Beuler, champion state trumpeters in the Lehigh band. Lower center: Faculty members dance at a tea in Brown hall. Upper center: Joseph Ricapito, '25, leads his high school orchestra in the concert series. Lower right: Graduate student at the controls of the \$800,000 lb. testing machine in Fritz laboratory. Upper right: W. F. Dalszell, '39, acts before the motion picture cameras in the journalism laboratory.

tra under the baton of Joseph Ricapito, '25. (See photo below)

* * *

Members of the Pennsylvania Association of College Students will gather at Lehigh, March 12, 13, and 14 to discuss problems and policies of that group.

That Lehigh has been popular as a convention center for student organizations may be witnessed by the recent series of such convocations that have accepted Lehigh's invitation to meet here. The campus is also serving as a meeting place for many high school groups for competitions in athletic events, journalism, etc.

The meeting of the Pennsylvania Association will be opened by President Williams and additional speakers scheduled include Dean C. M. McConn, and Dr. Neil Carothers.

* * *

Strides of progress by Lehigh's graduate school were indicated recently in a report by W. H. Bohning, '34, assistant to the registrar, who pointed out that 160 are now enrolled in the advanced studies.

With courses now leading to a doctoral level, additional stress has been placed on the work offered and during

(Continued on page twenty)





THE Prexy's Pen

processes and both are essential to intellectual life. There is as little profit in debating which of these is the more important as there is in arguing the relative value of the peach and the seed. They are both necessary if intellectual growth is to continue through a developing civilization.

The Association of American Universities sets as one requirement for a member university that it offer graduate work in the arts and sciences leading to the doctorate. The original charter of Lehigh University says, "The said college shall be, hereafter and forever, known and called by the name and style of the Lehigh University." The early faculty was carefully selected with this conception in mind. August J. DuBois, the first professor of civil engineering, had received the Ph.D. degree at Yale before he began teaching at Lehigh, as had his successor, Mansfield Merriman. Likewise, Joseph F. Klein, the first professor of mechanical engineering, had obtained his doctorate before he began teaching at Lehigh. That was a standard of preparation for professors of engineering to which few if any other institutions of that day were adhering.

Within the past year, the organization of the Graduate Faculty was consummated to succeed the Graduate Board as the agency to administer graduate study at Lehigh. Standards are being set up on a plane commensurate with the ideals of that early tradition. In those first decades, the undergraduate years brought the student fairly well to the frontiers of engineering science and even of many of the established sciences. The old senior theses in engineering were respectable inquiries of limited scope in new fields. Now, in contrast, owing to the new attainments in knowledge, it is seldom that a master's degree represents much more than advanced course work with a thesis which probes some small nook beyond the range of regular intellectual travel.

The real research that is done amongst our "association of scholars" must be done, therefore, by faculty members and advanced students intimately associated with them, combining the grasp, the perspective and the critical judgment of experience with the enthusiasm, the aspiration, and the ingenuity of fresh minds. The specific results of such endeavors may have great or they may have little practical value; the real objective is education at the outer boundaries of knowledge, the zone of growth, which brings real intellectual power.

C.C. Williams

I AM happy to accept the Editor's invitation to discuss serially certain questions of university policy which may be of interest to the alumni to the end that a common understanding may enhance validity and effectiveness in administration. For the moment, may I call attention to one area where progress and growth are active, namely, graduate study.

Times change, and what constitutes an educational procedure at one time fails at another. Galileo was a forefront mathematician of his day, but some of the things with which he struggled we take for granted now, and some of his erroneous theories vividly illustrate the principle that education consists more in the mode of thought than in the matter. For example, his fallacious beliefs that the section of a cantilever beam tends to rotate about the bottom edge thus placing all fibres in tension, and that the velocity of water in a flowing stream varies with the depth, could have been obviated had he been accustomed to use physical observations as a basis and corrective of speculative thought.

Educational procedures must, therefore, be adapted to changing conditions. The one universal and permanent fundamental is that intellectual life and growth are indispensable, knowledge being never static. The level at which this intellectual growth is operative may vary from age to age, the most vigorous thoughts of one time becoming the mental mummies of another, but at any particular period, education is intertwined with exploration and discovery.

A university is an association of scholars of varying degrees of advancement whose twofold purpose is to prepare young men of suitable capacities for lives of social usefulness and of intellectual and esthetic satisfactions, and to seek, prove and disseminate truth. These two functions, namely, instruction and research, like fruit and seed, are inseparable in the natural growth



FACE for a moment the problem of an engineer who is confronted with the building of a bridge across a neck of water 5,325 feet wide with a channel varying in depth from 65 to 219 feet, a maximum 7 knot tidal flow rising to 8 feet, the possibility of earthquakes, and a desired height of over 200 feet above water level.

Throw in also the factors of wind-resistance and a plan for rearing a beautiful and imposing structure and you have . . . the problem of the Golden Gate bridge.

The minute details of this vast undertaking being plotted, consider the task confronting two "Lehigh" firms when they had been given the valued contracts for construction.

One of these was the

Bethlehem Steel Company, headed by E. G. Grace, '99 and its fabricating division, successor to the company organized, and for thirty years directed by Howard H. McClintic, '88, and Charles D. Marshall, '88. The other was the John A. Roebling's Sons Company, of which the late Ferdinand W. Roebling, Jr., '01, was president and of which William Gummere, '99, is director of industrial relations.

The task of the Bethlehem Steel Company was complicated by the decision of the engineers to employ a unique form of cellular construction in which the shafts of the towers were to be made up of $3\frac{1}{2}$ foot square cells of plates and angles. These were to be nested so that the base of each tower would be 15 cells by 9 cells. As the height increased, outer cell nests would be terminated so that the top would represent only 21 cells, 3 by 7 in arrangement.

In all, these towers of carbon and silicon steel were to weigh 22,200 tons each and reach the unprecedented height of 690 feet, only 70 feet short of the Woolworth Building and 125 feet higher than the towers of the George Washington Bridge.

In a technical sense, the fabrication assumed the form shown in the accompanying illustration (see page X) and is explained by engineer Clifford E. Paine of Strass and Paine, Inc., the designers, in the October 8, 1936 edition of *Engineering News-Record* as follows:

1. Horizontal diaphragms were milled, assembled and riveted. Allowance was made in the milling of diaphragm plates to compensate for any variations in the thickness of the main web plates so that in the complete assembly the correct dimensions between boundary plates of the piece would be obtained.

2. Girders . . . were fabricated

BRIDGING THE GOLDEN GATE

The largest suspension span in the world ages reflects the construction work of Lehigh manufacturing companies and their subsidiary organizations

For valued cooperation in the preparation of this article we express appreciation to Jonathan Jones of the Bethlehem Steel Company, Wm. Gummere and Charles Jones of the John A. Roebling's Sons Company and to George Denholtz of the McGraw-Hill Publishing Company, New York — Editor

The SPORT REVIEW

Entering its early season matches as an almost unknown quantity, the Lehigh wrestling team has shown ability which should take it far in winning Eastern laurels.

Meeting Syracuse, Lafayette and Michigan in rapid succession, Coach "Billy's" men won three straight victories and as this edition goes to press, met the serious threat of Indiana and defeated the Westerners in the toughest meet of the season to date, 26-15. Details of the Indiana meet will be found in the March edition.

WRESTLING

Lehigh, 24½; Syracuse, 9½

Opening with a lack of veteran material and placing much hope on sophomore talent, Lehigh was able to pin Syracuse with four falls; a time decision and a draw 24½ to 9½.

lbs., who was beginning his varsity career, and who threw his opponent, James Walden with a figure four hold in 9:40, a scant twenty seconds before the end of the bout.

Captain Rudy Ashman of Lehigh met the Syracuse captain, Thomas Crowe in the 126 lb. bout and was concerned mostly with throwing his man rather than falling into any defense. When the fall did come, a bar and chancery, the spectators were surprised to hear that it was the same time as Allen's fall—to the second—9:40.

In the 135 lb. bracket, Mark Wolcott found an even match in William Deme of Syracuse who fought with him to an exact draw at the end of the 10 minute period. Two three-minute overtime bouts were called but when these in turn were drawn, the points were divided.

As Hagerman, representing Lehigh in the 145 lb. division, was opening his varsity career and when the bout went into overtime he was able to put up a good fight for six minutes but the more experienced Becker drew him into a headlock for a fall in 1:37 of the second period.

Tommy King, who last year became an Olympic finalist as a freshman at Lehigh, drew Al Gertmanian as his opponent in the 155 lb. class. As Gertmanian, protecting some cracked ribs, held the mat and the bout progressed slowly until King was awarded a referee's decision with a time of 6:27.

Tim Ford, Lehigh's 165-pounder, started his season right by scoring the first fall of the evening in 2:51 when he topped Reuben Keppel into a crucifix-cross-body ride and bar arm.

Walter Wells, Lehigh-175 lbs., had a close time with Howard Peters and it was not like anybody's bout as it came to the closing time. The crowd waited for a fall, however, and a few of the optimistic suggested 9:40, the time which Allen and Ashman had lost then, Wells maneuvered his opponent to a head scissors, threw him and

Walt Wells, Lehigh 175-lb. class, shows Michigan's Morgan the rafters in 6:39 with a bar and chancery.

marked up the exact duplicate time, 9:40.

In the heavyweight division Lehigh's "Whitey" Sterngold met the formidable Ken Crotty, long recognized in inter-collegiate circles. Sterngold put up an outstanding fight and held Crotty to the slim time decision of 1:43.

Lehigh, 30½; Lafayette, 6½

With more Lehigh wrestlers making their first varsity appearance on the mat, the Brown and White routed the Maroon, January 13 with four falls, two decisions and a draw to total a score of 30½ against 6½ for the visitors.

In the 118 lb. class, Allen of the varsity, wrestling his second match, took a time advantage of 2:14 against Yost.

Baiter, a new Lehigh varsity wrestler made his debut by throwing Rodgers in the first half of a two period bout in the time of 1:31. However, Rodgers turned the tables by throwing Baiter in the second period in 56 seconds, thus taking the honors.

Captain Ashman took the 135 lb. post and gained a fast fall over Warner of Lafayette in 2:53. The hold was a bar and chancery.

Reider, another "first time varsity" Lehigh man, proved to be fast, aggressive and powerful in meeting Grier of Lafayette in the 145 lb. division. Grier was a hard man to handle but Reider pinned him with a bar and chancery in 6:54.

In the 155 lb. class, the bout was almost over before it began when Tommy King of Lehigh threw his man to the mat and had him pinned in 25 seconds. The hold was a bar and chancery.

Gene Callor of Lehigh, wrestling at 165 lbs., took Gearhardt of Lafayette with a time advantage of 1:40.





Elliot Small soon dispatched Lafayette's Agard in the 175 lb. bracket when a body press gave Lehigh the fall in 3:42.

Perhaps the toughest battle of the evening, however, was fought between Rabold, representing Lehigh in the heavy division, and May of Lafayette. With almost identical times at the end of the regular ten minute period, they went into extra time but the bout ended in a draw.

Lehigh, 23; Michigan, 13

Considering the Michigan wrestling match to be one of the most important of the year, a capacity crowd of students and fans jammed Taylor gymnasium and got their quota of excitement when Lehigh won a 23-13 victory after an evening of hard wrestling.

Allen, undefeated in the 118-lb. class in this, his first year of varsity wrestling, started for Lehigh but found Speicher of Michigan too much for him. Allen did fight off a fall, however and Speicher took a time advantage in 4:48.

Fans cheered wildly as Captain Ashman came out for the 126 lb. bout to face Kellman, a strong Michigan man and Ashman took his bout on time after Kellman had fought off several dangerous holds. The advantage was 8:18 and the score Lehigh, 3; Michigan, 3.

With the score tied there was much concern over Mark Wolcott's bout with Cameron at 135 lbs., but the Lehigh man had little trouble with his opponent and threw him with a bar arm and chancery in 9:40—the identical time at which three falls had been scored in the Syracuse match. Lehigh, 8; Michigan, 3.

The next bout, 145 lbs., looked bad for Lehigh, Thomas, national A. A. U. champion was representing Michigan

against the inexperienced Reider of Lehigh. As expected, Thomas took Reider to the mat on contact but Reider whipped on a quarter nelson and clamped on a bar and chancery to pin the champion in 42 seconds. The gym practically rocked. Lehigh, 13; Michigan, 3.

Captain Frank Bissell of Michigan, wrestling 155 lbs., met Tommy King in a long-extended bout which went into extra time. King had practically all of the advantage in the first period and was on top in the second but his attempt to get a fall dropped him into Bissell's half-nelson and inside crotch hold and he was thrown in 1:45 of the second overtime. Lehigh, 13; Michigan, 8.

Lehigh's Curt Ford, wrestling 165 lbs., could do nothing with Danner of Michigan who had an unorthodox style but was strong and able. Ford tried to avoid being thrown but fell into a key lock and lost on a fall in 7:16. Lehigh, 13; Michigan, 13.

With the score tied, local fans realized the responsibility on Walt Wells who wrestled 175 lbs. against Morgan in the next bout. Both men fenced and remained on their feet for six minutes, neither caring to take an unwise chance. Then Ford lunged, caught Morgan off balance and pinned him with a bar and chancery in 6:39. Lehigh, 18; Michigan, 13.

While Lehigh was out of danger there was still a chance of Michigan's tying the score and Sterngold faced Jordan in the heavy division. When they had been only on the mat a few moments, Jordan's knee became injured and Coach Sheridan allowed Michigan unlimited time to treat it. Jordan again returned to the mat but again the knee bothered him and the bout was forfeited. Lehigh, 23; Michigan, 13.

Change in Schedule

Lehigh alumni who follow the wrestling team may note from an announcement by Nelson A. Kellogg, director of athletics, that the Princeton wrestling meet will be held Tuesday evening, March 2 in the Princeton gymnasium. There will be a junior varsity meet at 7:30 and this will be followed by the varsity bouts. This meet had previously been scheduled for Wednesday afternoon, March 3.

BASKETBALL

Army, 46; Lehigh, 15

On Wednesday, January 6, the Lehigh quintet invaded West Point, were hopelessly outclassed and returned on the wrong side of a 15-46 defeat.

It was not so much a case of a slump in playing as a case of meeting Wooster (Ohio) and Army on successive dates, both teams being more or less beyond Lehigh's reach.

The Army attack was too much for the Lehigh defense, and what shots the visiting team could get at the basket were too wild to be effective.

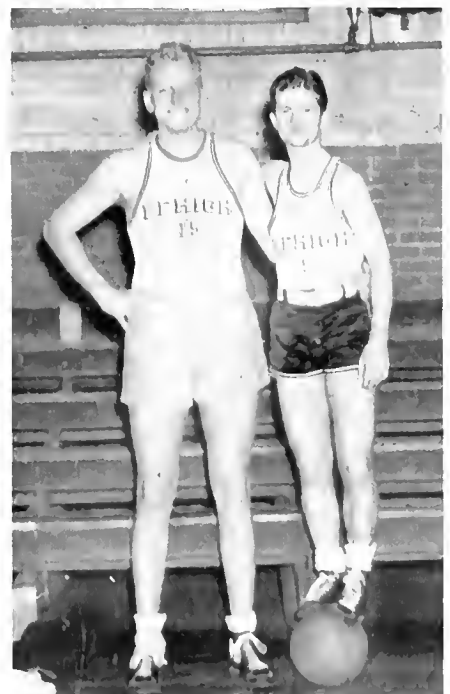
For Lehigh, the points were scored largely by Drake, Hankins and Kohl with Hankins being the only man to sink two goal shots.

Lehigh, 56; Haverford, 20

Doing a right-about-face from their former type of play, Lehigh burned at top heat through an entire game with Haverford and piled up the biggest margin.

(Continued on page twenty)

GRANNATT AND BARRY A size for every need



READING

The Lehigh Club of Southeastern Pennsylvania took advantage of the fact that Dean Neil Carothers was to be in Reading the evening of January 18, addressing a forum under the auspices of the Women's Club. They held a supper at the University Club with Carothers present as guest of honor. Some 35 fellows assembled to greet the dean and Billy Cornelius, executive secretary of the Alumni Association. The dean had to leave early to get to the Women's Club but before going expressed his pleasure at being present to greet old acquaintances and to make new friends among the alumni.

O. V. Greene, '22, then called the meeting to order. He explained that a small representative gathering of the club attended a supper given by E. A. Quier, '91, last spring. At that time, it was brought out that the younger men should begin to take hold of matters in connection with the Lehigh Club of Southeastern Pennsylvania and assume office. A nominating committee was appointed and the group elected the following officers:

President, O. V. Greene, '22
Secretary, George Potts, '24

Greene felt that this action ought to be ratified by the club or an entirely new slate set up, if that should be their wish. Motion was immediately made, ratifying the action of the group and the above were constituted as officers of the club. Greene brought out that it was suggested the club have an Activities Committee to arrange for meetings, etc. He called on Cornelius to tell what other clubs are doing, the character of their meetings, how often they get together, etc. As a result of general discussion on the subject, it was decided that they should have one dinner a year, informal as far as dress is concerned, but more or less of a formal affair with definite speakers, and that the other meetings be rather in the form of smokers or outings when the weather is suitable.

The question of dues was then discussed and it was decided to make the dues \$1.00 a year, each year to stand by itself, not accumulating back dues. All on the list are to receive notices, are welcome at all meetings whether they have paid dues or not, but each one paying \$1.00 dues would receive annually a membership card with his name on it.

President Greene then called on Billy Cornelius to give a general idea of things going on at the University and the Alumni Association and to tell them particularly about the progress being made in the solicitation of funds for the addition to the Chemical Laboratory, explaining how badly this addition is needed right now to take care of the large number of students studying chemistry at Lehigh. Cornelius congratulated the group on the fine progress made in the

LEHIGH CLUBS

club during the past year under the new officers and predicted a fine future for the club.

There being no further business, the meeting adjourned and practically all went to the Women's Club to hear Dean Carothers.

The club will likely have its first dinner for the season the early part of May when there will be more or less assurance of good weather, giving the members of the club from the outlying districts a better opportunity to attend.

NEW YORK

A. C. Peters, director of the World Traders' Institute, was the guest speaker at a dinner meeting of the New York Lehigh club, held on January 13 at 2 Park Avenue.

As director of the World Traders' League, Inc., Mr. Peters controlled the publicity and policy presentation of its fight for reciprocal trade policies and reduction of the gold content of the dollar. Consequently he was well versed in the subject "Money and Unemployment" which he chose for his topic.

The meeting was a regular gathering for the New York group and was well attended.

The club members are now looking forward to the March meeting at which Warden Lewis E. Lawes of Sing Sing prison will give an address. Additional speakers for this meeting, which will be held March 17 at 2 Park Avenue, have not been announced as yet.

Members of the Board of Governors of the club have been given notice that their regular meeting will be held at 2 Park Avenue, on February 17 at 6:30 p. m. and that "attendance is earnestly requested as the matters which will be there considered are of prime importance to the club."

PITTSBURGH

Okeson, Harmeson, Red Slater and Billy Cornelius arrived from various directions safe in town for the 7 o'clock dinner of the Pittsburgh Lehigh Club. Of course, Red Friesell, Jr., living out there, had not far to come.

Eisenhart, president of the club, asked Dan Berg to act as Toastmaster and he immediately announced that this was to be a sort of football victory dinner and introduced "Okey" as the best authority on football in the country.

Okeson, after paying a fine tribute to our coaches, gave a fine account of some of the recent gifts to the University and the need of endowment to keep affairs at Lehigh on the upward grade.

Berg then introduced Coach Harmeson; everyone rising to their feet and giving the popular coach a hardy Lehigh cheer. Harmeson dwelt on the fine spirit of the Lehigh football squad, schedule of games for this year and the need on the part of the alumni to continue to interest young men with the proper scholastic standing, who could make worthwhile students at Lehigh and at the same time, might be outstanding athletes.

Red Friesell was then called on and gave a picture of his arrival in California in the midst of rain and a hail storm which, of course, all the Californians said was "most unusual." He then gave a play-by-play account of the Rose Bowl game which he refereed.

Berg then paid a fine tribute to the Old Guard of Pittsburgh and introduced Billy Cornelius as "the link between the old and the new." Billy said there were two places in the country where he was known as "our Billy Cornelius" and that Philadelphia and, of course, Pittsburgh were the two places.

Billy dwelt on the fine spirit of the alumni all over the country, dwelling on the fact that at the present time there were 429 more paying dues than on the same date last year and 500 more subscribers to the BULLETIN. He also stated that although the campaign for the much needed addition to the Chemical Laboratory had really hardly started, more money was in hand and promised than was raised in the entire campaign for the Library debt. Dwelling on his pleasure of being out in Pittsburgh for a visit and urging all present to get up to Bethlehem whenever they could he called attention to the arrangement for a general Alumni Homecoming Day this year to be on the same day as the Lehigh-Lafayette game and predicted a big crowd and a rousing good time.

After the singing of the Alma Mater and a rousing Lehigh cheer led by Dan Berg, the crowd broke into groups, reluctant to call the affair over.

John McC. Latimer.

(Continued on page twenty-one)

On the Road

Your Executive Secretary is now "on the road" as a sort of travelling salesman. He does not have to be a "high-pressure" one now that the need of the addition to the Chemistry Laboratory has been so forcibly brought home to everyone and the popularity of the project has already been demonstrated.

Having in hand promised gifts and cash totalling nearly \$60,000, or ten thousand more than was raised last year in the *entire campaign*, the drive proper is really just starting.

The Lehigh Club of Philadelphia has its cards out and a fine committee already at work. The Reading committee of the Northeastern Club of Pennsylvania is at work on its cards. As your secretary writes this article, he is putting on his high top boots for a trip to flooded Pittsburgh, to attend their annual dinner and committee luncheon for distribution of their cards.

Then down to Baltimore to a luncheon with the committee for distribution of cards and to an oyster roast dinner in the evening of the same day, February 11. If there is anything he loves to eat more than a roasted oyster it is a minced clam stew with an onion. He is surely looking forward to that trip to Baltimore. So it goes, "soup to nuts." No two clubs are alike and no two have identical plans, but all are alike in their loyal spirit towards "good old Lehigh." The members are ready to rip off their coats and work for her and if need be fight for her at the "drop of the hat."

As Ripley says, "Believe it or not," we have four hundred and twenty-nine more men paying dues today than we had at the same time last year. Many of these have never paid dues since they left college years ago. Over five hundred more are paid subscribers to the BULLETIN. Your executive secretary believes that more than

The alumni campaign moves ahead as clubs begin local fund drives

By
Wm. A. Cornelius

anything else, the thing that has brought this about is the personal contact made last year by committees of the Lehigh Clubs, class agents, etc., talking *fact to face* with the alumni about Lehigh's problems, successes, ambitions, etc., etc. As has been well said, it is not so much what Lehigh has done for a fellow that makes him a friend to Lehigh, but more often his friendship is increased and made permanent *by an opportunity to render a service to his Alma Mater*.

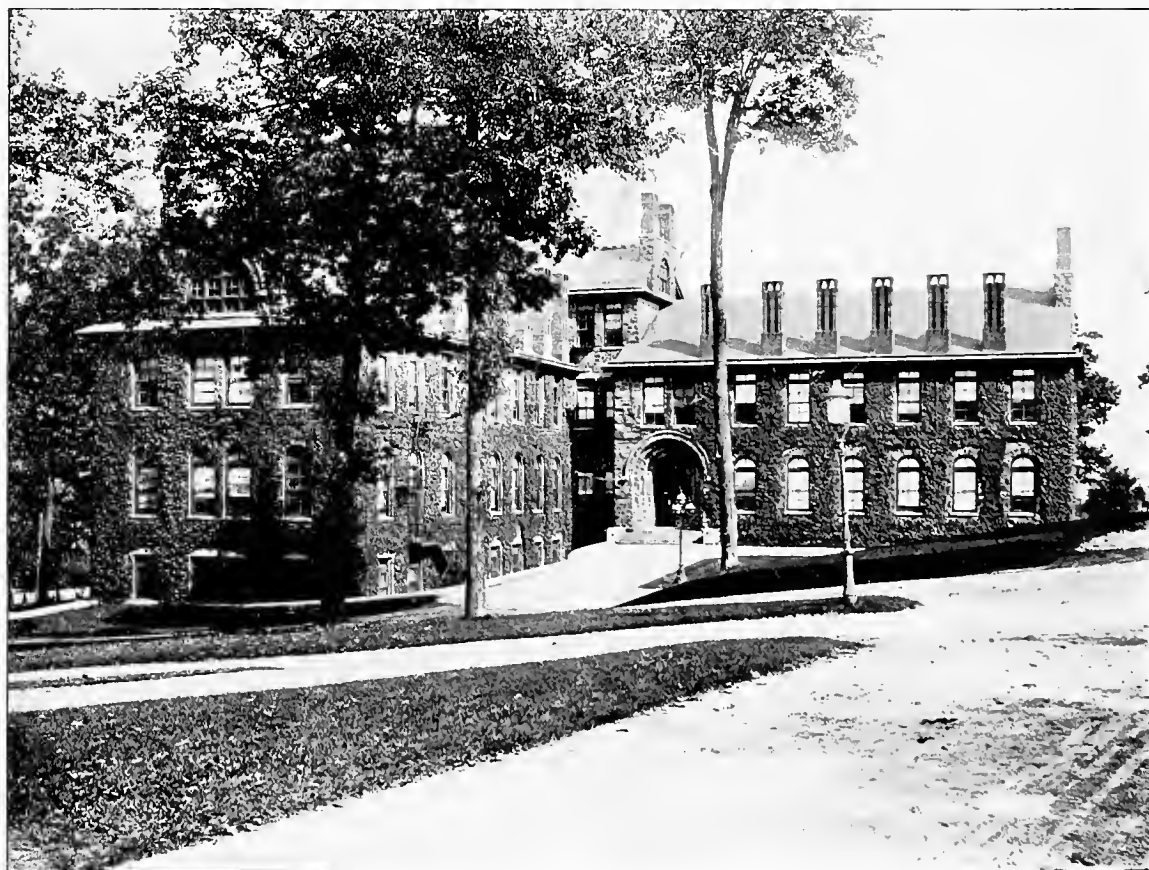
Some fellows are asking "How about

The Chemistry Building has not been enlarged since this old photograph was taken, shortly after its construction.

the dormitory building?" Well we hear by "grape-vine telegraph" that "ways and means" are likely soon to be provided for the building of one unit, without calling on the Alumni Association for any financial aid. This is good news for with the added enrollment the unit is badly needed.

In the April number of the BULLETIN, which by the way goes to *all* on our active alumni list, you will find a chart, something like the airplane picture run last year. It will show the percentage of the number in each class, up to that date, who have made a gift for the addition to the Chemistry Building. Last year several of the class agents said "Why did I not think of it sooner. I had a plan so every member of my class would be credited with a gift and the class show up a hundred per cent on the chart." Well, here is your advance notice. If any of you have a plan "up your sleeve" *put it into action*.

The Club committees are at work, but as we did last year, we will give the class agents, soon after the first of April, a chance to contact each member of their class, and we will list on a chart at the Alumni Meeting in June the ten classes that show the best percentage of givers, regardless of the amount.





In the NEWS

Striking at Col. F. S. Green, New York State superintendent of public works, Dr. Alexander Potter, '90, has asked Governor Lehman to order a legislative inquiry as to why the construction of a causeway and tunnel between Nyack and Tarrytown was opposed by the superintendent.

While agreeing with the majority report of the Rockland Westchester Hudson River Crossing Authority that a bridge was impractical, Dr. Potter asked that the minority view, supporting the construction of a tunnel at this point, be included in the report.

From Washington press releases comes the information that Wm. B. Woodring, '36, of Alton, Ill., has been named third in national rankings of small-bore riflemen by the National Rifle Association.

A mainstay of the Lehigh rifle team when a student, Woodring did most of his national scoring in the half year after his graduation with one of his most spectacular feats being the scoring of a possible 400 in three events in one day.

Ovid W. Eshbach, '15, special assistant in the personnel department of the American Telephone and Telegraph Company, with Howard L. Davis, director of technical employment has been engaged in giving a series of seminars and lectures on "getting the job" before various groups of college students.

ESHBACH



Such a lecture at Rutgers was typed by the press as being "the most interesting seminar held up to date," and a like program here gained enthusiastic student interest.

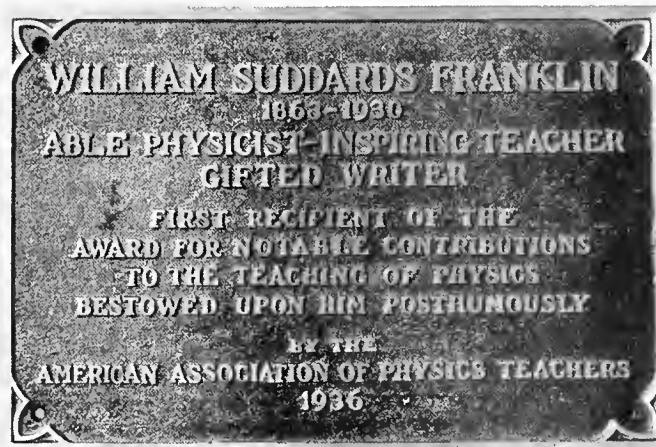
Newspaper accounts

are at variance in reporting the illness of Dr. Henry L. Doherty, Hon. '31, who was admitted to the Temple University hospital more than a month ago for treatment of a throat ailment. While his associates claim the illness to be a minor one, certain press reports claim it is "generally regarded as serious."

In spite of his illness he directed plans for the Roosevelt Birthday Balls over the nation, dedicated to the aid of the fight against infantile paralysis.

* * *

The posthumous award of a bronze plaque, as shown herewith, was made to William S. Franklin who was a professor at Lehigh from 1908 to 1916 and for some years headed the department of



TO THE LATE PROFESSOR FRANKLIN
For contributions to teaching

physics and electrical engineering.

Dr. Bidwell, present head of the department, who accepted the award, stated that it has been presented for "outstanding contributions in the teaching of physics." A duplicate plaque was also presented to the Massachusetts Institute of Technology where Professor Franklin taught for 12 years.

* * *

Among 14 of America's leading engineers who told of the career and achievements of Geo. Westinghouse at the 57th annual meeting of the American Society of Mechanical Engineers were Dr. L. B. Stillwell, '85, who was recently honored with the Edison medal.

The meeting, held in Pittsburgh, commemorated the 90th anniversary of the birth of the great inventor and industrialist.

An interesting study in the field of seismic research has been published by Captain N. H. Heck, '03, chief of the division of Terrestrial Magnetism and Seismology for the United States Coast and Geodetic Survey. Entitled "Earthquakes," the book traces developments in the study of this field without delving into technical details.



HECK

* * *

W. H. Lesser, '05, an electrical and mechanical engineer for the James H. Pierce Co., headed by J. H. Pierce, '10, of Scranton, Pa., has contributed an article on "The Trend in the Anthracite Industry," for the January issue of the American Mining Congress Journal.

* * *

The Hamburg, (Pa.) Item, edited by Millard A. Stofflet, '26, has been given the honor of being awarded first prize in its division in the weekly field by the Pennsylvania Newspaper Publishers' Association at its annual convention in Harrisburg.

* * *

The retirement of Dr. William Bowie, '95, as chief of the division of geodesy of the Coast and Geodetic Survey of the Department of Commerce, has been announced after 41 years of service.

* * *

In a New York Times account, Dr. Bowie is credited with being a "world authority on the structure and composition of the earth." One of his individual scientific accomplishments, the article continues, was "the gathering of data to support the theory that the moon originally was part of the earth and was whirled off from the region of the Pacific Ocean by the gravitation pull of the sun."

* * *

Two Lehigh men whose recent appointments to the editorship of publications have been announced are John H. Fulweiler, '33, who is directing the work of *Frontiers*, a new magazine published by the Academy of Natural Sciences of Philadelphia, and W. K. Wiegner, '21, who is editor of the Engineers' Club *Bulletin* of the Lehigh Valley.

submarine it might be mentioned that she carried a crew of 80 men and the majority were involved in operating the engines.

The first thing I learned on boarding her was that the perfect man on a submarine should be five feet tall. Hoskinson was well off, being about 5 feet 9 inches in height but being 6 feet 1 inch I got several bruises before I learned to duck.

Finally the equipment had been placed at the most ideal spot in the submarine—right at the meta-center.

Then, on November 25 came the time for a trial run, which gave Hess a bad scare as he was just arriving by boat and, finding the *Barracuda* gone, he was frantically considering an air trip to the next port to catch us.

This trial run was my first trip in a submarine and I cannot claim that it was too unusual. As we were constantly in the lower portion of the ship there was nothing to see and to inquire of our sensations would be like asking a sub-way motorman about the weather.

The only manner in which one can tell a submarine is diving is by the heat caused by the cooling of the diesels after the hatches are closed and usually the motion is smoother. The diving sensation is practically negligible. So far as seeing anything in the water is concerned, Captain Gorry tells me that in all his years of submarine work he has seen only one fish through the conning tower porthole.

So came the time for the expedition proper and we sailed out of Colo Solo. Every 15 minutes a sounding was taken by means of a sonic sounding machine or fathometer which set up a high frequency electrical impulse. This "echoed" from the bottom of the sea and was received again on the same machine, thus calculating the depth.

Our trip as a whole consisted of four or five days at sea and three in a new port. While at work we would sail on the surface for five or ten hours between our predetermined stations. It took about an hour to dive 57 to 90 feet, the usual depths necessary to avoid the motion of the waves.

The diving officer who was stationed above us would tell us when we had reached the proper depth and we would turn on our crystal clock, then, as the ship leveled we would lower the gravity machine on its gimbals which allowed it to rock with the slight motion of the ship. The sensitive pendulums within the machine were adjusted to swing both to the roll and dip of the submarine and were plotted by a light ray which was trained on sensitized paper, giving us a permanent record.

Thus, with the possible error due to the ship's action calculated so that it could be eliminated, and the time element controlled by the most perfect timing mechanism yet devised and the latter regularly checked against Arlington time, we were able to compute our gravity from the movement of what we might

Science in the Deep

(Continued from page nine)

call the "corrected" pendulums. The curves of their action were of course plotted on the sensitized paper and it was from the latter that the calculations were actually made.

Consequently our hardest work came between stations as the half hour required to "take" the stations, which actually were not at a spot but rather a line over which the submarine travelled in that period, involved little work. But the developing and computations which followed required constant labor.

Since dives were made by day and night and officers, crew and scientists were required to be at their posts for every dive, it was a welcome relief to

Dr. Richards

The BULLETIN is pleased to report, through the courtesy of Mrs. Richards, that President-Emeritus Richards' heart condition, which necessitated his retirement from active work, is better than it has been since doctors began treatment.

This improvement has been made in spite of a recent attack of influenza which was quite serious for a time, due to the threat of pneumonia.

The last reports have been most encouraging to the family and, in a measure, to Dr. Richards as his long confinement has been discouraging in contrast to his usually active life.

know that the next port was close at hand.

Thus we proceeded in a zig-zag course through the islands of the West Indies, sounding, diving and recording, and now confident from our records that the apparatus was working perfectly. If there was any danger involved there was too much work to allow time for worry. In extreme depths over which we travelled the possibility of salvage in case of an accident was immaterial as the submarine would have been crushed by the pressure long before it would have reached bottom.

Receptions were given for us in the five islands which served as ports, each by the governor, as befit a foreign man-of-war, and varying from dinners to lawn fetes.

Just before we reached St. Thomas and while travelling in the Anegada passage at night we took a sounding of 800 fathoms. The next thing we knew the submarine was stopped and then the command cracked out for full speed astern. In the passage, used by commercial steamers, was an uncharted shoal only 20 fathoms deep and while we were in no immediate danger we took no chances.

The shoal was accordingly plotted as an aid to shipping as it would alarm a skipper who suddenly took a 20 fathom

sounding at this point and imagined his steamer to be off its course.

Finally at St. Thomas, the expedition reached the end of its West Indian travels and turned north to Philadelphia, travelling on the surface, of course. The water was rough at times and made travelling uncomfortable but we reached Philadelphia on time even after two dives to record stations off the Virginia Capes.

This latter work was done to verify my previous results as taken in seismic studies from the S. S. *Oceanographer* and the S. S. *Atlantis*.

So, on the fourteenth of January we reached Philadelphia and after the necessary time required to dismount the apparatus from the submarine, we moved with the equipment to Washington where, on the 19th of the month, it was placed in the gravity room of the Coast and Geodetic Survey. This room is the standard base for all gravity stations in North America.

With the equipment again placed in operation and with the room temperature raised to approximate that of the submarine, a final reading was taken. Just such a reading was taken in the room before the equipment was shipped to Coco Solo and now the cycle of gravity studies was completed.

All that we can say now is that we know we obtained a satisfactory measurement of gravity at every station we visited. It is quite certain also that the soundings obtained constitute a valuable addition to our knowledge of the ocean bottom.

Just how much we have been able to contribute to the advancement of science toward that desired goal of knowledge which will explain the causes for geologic changes cannot be known now.

Our appreciation of the fine cooperation of the government and sponsoring societies, however, can never be denied.

We received splendid cooperation from Lt. Commander W. A. Gorry, the commanding officer of the *Barracuda*, and from the other officers on the boat. This cooperation contributed greatly to the success of the gravity measurements and made the cruise a very pleasant one indeed.

Summary of Scientific Results

By Maurice Ewing

The principal scientific results of the Navy Gravity Expedition were as follows:

1. A prominent gravity anomaly was mapped.
2. The Nares Deep was shown to extend southward as a foredeep to the Leeward Islands.
3. An uncharted shoal, which is of immediate practical importance for navigators, was discovered in the Anegada Passage.
4. A crystal-controlled chronometer supplied by the Bell Telephone Laboratories was made to work perfectly on board ship. This greatly increased the accuracy obtainable in all time-measurements which are made at sea.

The Sport Review

(Continued from page fifteen)

gin of the season when they dropped the visitors, 56-20.

Lehigh started early with Zell dropping one from the foul line and following with two more to give the home team the lead 6-0, but Haverford spurted and topped the score by 8-6, and it looked like the usual end of Lehigh's chances.

But the engineers again began to tally with shots from all angles and pushed the score to 28 at the half while holding the visitors to one more goal and a foul shot.

The rout was continued in the second half when Haverford went into defense play but became erratic in passing and was held to nine points while Lehigh added 28 more to its score.

Lehigh, 27; Swarthmore, 25

One of the tightest and most satisfactory basketball games of the season was fought on January 16 when Lehigh topped the Swarthmore Garnets in a nip-and-tuck battle which ended 27-25 as Captain Howells dropped a long one in the closing minutes of play.

Swarthmore took an early lead of four points, but Lehigh's Drake dropped in two field goals to even the count. It was anybody's game with the lead passing from one team to the other and the half ended with Swarthmore holding the slim lead of 16-15.

The visitors had a slight edge during the second half and as the game came into its closing minutes they were leading 25-21 but Russell and Grannatt, Lehigh reserves, each accounted for a goal and the score went deadlocked almost to the closing gong. But Howell's long one was the last to drop through the hoop and Lehigh took a hard-fought victory.

Bridging the Golden Gate

(Continued from page thirteen)

very small fraction of an inch and definitely practicable.

To eliminate chances of error, as soon as the fabrication of the cells had proceeded to a definite degree a portion of the tower leg section was assembled at Bethlehem's Pottstown works as marked by templet and was found to meet the specifications.

When the fabricated sections had been completed in the Pottstown and Steelton, Pa. plants, they were forwarded by rail to Philadelphia and then shipped via the Panama Canal to the Bethlehem plant at Alameda where they were stored until erection.

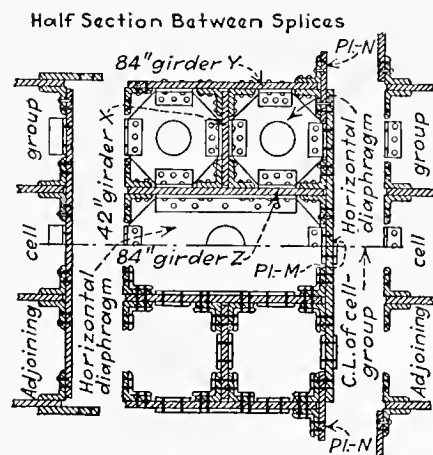
To the Roebling Company fell a no less herculean task, for perhaps the most vital part of this, the longest span suspension bridge in the world, lay in the stretching of two cables across the expanse of the Golden Gate.

If one is under the conception that cables, each weighing 11,000 tons, 7640 feet long, 36 inches in diameter and con-

taining 27,572 separate wires can be elevated to towers almost 750 feet high, it is time to change the view.

From the headquarters of the Roebling Company of California it was necessary to set up a field plant, for in the spinning of the huge cables for such a project, the work must be done on the spot.

When the towers had been completed and the cable saddles prepared at their top, the Roebling men began with the stretching of an unimposing rope across the Golden Gate, but actually it was the first line to span the water at this point and when hoisted to the towers, represented the first step in the preparation of the foot-bridges which hung just be-



Half Section at Splices
CELL CONSTRUCTION DIAGRAM
Courtesy of Engineering News-Record

low the proposed stretch of the completed cables.

The walkways were supported by strong cables and were well anchored for they served an important purpose in the "spinning." Each of the footbridges was approximately 16 feet in width and was braced and guyed to promote safety and lack of vibration.

Instead of the "tramway bents" or carrying frames ordinarily used to support the endless tramway rope, this rope was supported by means of an independent overhead catenary system. This system was hung about 20 feet above the foot-bridge and parallel thereto.

There were four independent tramways all supported on this same overhead system. Each endless tramway loop ran from one anchorage to the far tower. A spinning carriage was connected to each of these ropes and the loops of wire were pulled across the Gate on these carriages.

Then followed precise work as the important guide wires were dropped into the tower saddles and allowed to sag just the proper degree determined for the completed cables. All future work was to depend on these calculations and lights burned late into the night as calculations were made when the contraction and expansion due to the sun's rays could be avoided.

Reels upon reels of wire were brought onto location and then the first wire was looped around the traveling wheel

which in turn was pulled by the endless rope from one anchorage to the middle of the main span. There it met another wheel bringing wire from the other anchorage. The wire was transferred from one wheel to the other, and the wheels returned to their respective anchorages pulling wire from the far anchorage.

After each loop of wire had been thrown around a strand shoe at the anchorage and the spinning wheels had made about 25 round trips per day, five days a week for six months, the result was two cables, each containing 61 strands with an average of 452 wires each. The work of the spinning had been completed.

On the completion of each group of four strands, they had to be moved from their spinning saddles to the permanent cable saddles on the towers. Here the Roebling engineers provided great lifting beams and hydraulic jacks which, together with jacks in the anchorage, put the strands into their final positions. The strands could be adjusted to 1/16 inch and again the work was done at night to avoid action of the sun. With delicate precision, the strands were dropped into their permanent resting place.

Here Bethlehem again entered upon the scene with four traveling derricks, one operating in each direction from each tower and went out under the cables and hung to them the 23,000 tons of structural steel for the floorbeams, stringers and stiffening trusses comprising the support for the 60 foot reinforced concrete roadway.

The story of construction is closed with a fitting tribute to the McClintic-Marshall workmanship.

The south tower of the bridge, in this sense, represents one of the most outstanding engineering feats of the entire project. On January 10, 1935, construction was begun and, five months and 18 days afterward, on June 28, it was fully completed. This unusually rapid time enabled the company to beat its schedule by 104 days and gain a bonus of \$123,000.

So, by gradual but studied steps, the bridge is reaching completion with the time for its formal opening set in May of this year.

From engineering authorities it is learned that it may be many decades before a longer suspension bridge is constructed; not that its construction is impossible, but rather that the economic demand for a longer single span probably will not be realized in the day of the present generation.

Cross Cutting the Campus

(Continued from page eleven)

the past semester approximately 50 courses were open to the record number of students. In spite of the gain in numbers, no catalog has been issued for the graduate school and enrollment has been gained only through direct mail information to Lehigh graduate students.

Proud Heritage

(Continued from page seven)

his regulation of details of life and conduct, and his formulation of the motto of the Academy. He made close distinctions as to official responsibility. On one occasion, after meeting a cadet off limits (a court-martial offense), he did not deal with the offender himself, but notified the commandant that he should be more watchful of the men under his charge.

"He had insisted that his administration and the decisions of the Academic Board should not be overruled by officials in Washington—that, within their sphere, they should not be subject to dictation. When cadets dismissed for cause were re-instated by orders from the War Department, and the dictation continued, leading to an open break with President Jackson, General Thayer asked to be assigned elsewhere, and left never to return."

So it was that the Military Academy was really "coming into its own" at the time Lehigh was founded, and the very principles that had fostered the growth of West Point were being introduced at Lehigh by Dr. Coppee.

That the unusual stress on blackboard work at Lehigh and the rotating mathematics sections were introduced at other institutions from the Academy is noted on the 27th annual report of the Massachusetts Board of Education, 1864, which says in part, "... The U. S. M. A. at West Point holds an important relation to the public schools and colleges of the country. It has introduced into them improved methods of instruction, new branches of study, and elevated the standard of attainment in mathematics and applied science.

"To West Point belongs the credit of introducing the blackboard into the schools of this country. . . ."

From Godson's *History of West Point* (1891) comes the following: "Distinguished educators were asked to make suggestions in regard to the Military Academy (particularly in regard to the department of modern languages) and many did so. Among those to respond were . . . Professor Henry Coppee of Lehigh, who thought the courses might be expanded."

A distinguished Lehigh graduate, Holbrook Fitz-John Porter, '78, who served as trustee from 1884 to 1888 was the son of General Fitz-John Porter, a division commander of the Army of the Potomac. It would take, certainly, much courage to send a son to such a young college. But it is additional evidence of the faith General Porter must have had in Dr. Coppee.

Now, let us go down the line of later Lehigh alumni. There are the two Leffevres, Edwin, '91, and Henry F., '92, the sons of an army officer. Both have distinguished themselves in their respective fields—the former as an author and the latter as a mining engineer.

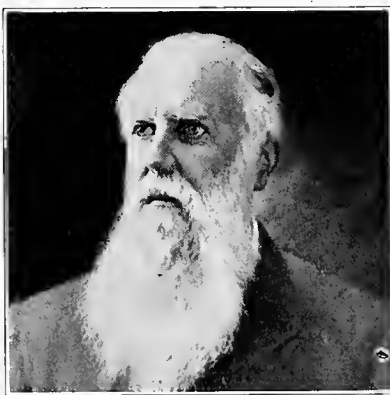
Then there is Brig. General Colden

L'Hommedieu Ruggles, U. S. M. A., '90, and Lehigh, '03, who, while stationed at Bethlehem in connection with government work at the Bethlehem Steel Co., acquired a Lehigh degree.

"Custer's Last Stand" was an historic example of bravery which has the admiration of every American. Only too few of us know that G. L. Yates, '97, is the son of Captain Geo. W. Yates, who fell with Custer in that massacre.

Robert H. E. Porter, '89, is a son of General Fitz-John Porter and a brother of the late H. F. J. Porter of the class of 1878.

Many Lehigh men also claim West Point as their Alma Mater. During the period 1920-1924 six in all were grad-



DR. HENRY COPPEE
He brought tradition.

uated into the service and no doubt a list of Lehigh men who attended the Military Academy from its very beginning would be quite lengthy.

While undoubtedly there may be other connections, both in personnel and in educational policy that bind the two institutions, it is the regret of the writers that they may have been omitted. The above facts are much those of casual "contact" rather than anything else. All Americans are proud of West Point and all Lehigh men may well be proud of the fact that the roots of their University were in the ground of the U. S. M. A.

Lehigh Clubs

(Continued from page sixteen)

PHILADELPHIA

At its 44th annual meeting, held January 22 at the Bellevue Stratford, the Philadelphia Lehigh Club had as its guests Dr. C. C. Williams, president of the University, Walter Okeson, commissioner of football and Wm. A. Cornelius, alumni secretary. A record turn-out was present for the affair.

After enjoying a delicious dinner, retiring President N. E. Funk called on "Billy" Cornelius for the latest dope on the Alumni Association activities. Cornelius reported that the work on securing funds for the addition to the Chemistry Laboratory is progressing nicely

and that to date over \$50,000 has been raised either by pledge or by actual payment. In addition, he remarked that the Association has a larger number of men paying dues, subscribing to the BULLETIN, and contributing to the income account for the University, than at the same date last year.

Okey spoke briefly on athletics in general at the colleges and on football in particular.

As Dr. Williams was introduced, the entire group rose to greet him. He made the address of the evening. In his remarks, he mentioned that it might be possible to have colleges and universities sponsor *totally professional* football teams to play in large cities and raise funds, and in addition have the academic institutions maintain their amateur teams for undergraduate competition. These remarks were picked up and broadcast by the entire press.

Secretary Bernstein presented his annual report in which he stated that the Board of Directors of the club held ten regular meetings and one special meeting during the previous year. Three meetings were held by the club.

The following officers were elected for this year: President, J. J. Shipherd, '21; Vice Presidents, R. D. Warriner, '24, and Joseph Hunter, '26; Treasurer, Walton Forstall, '91; and Secretary, Moriz Bernstein, '96. This will be Bernstein's 35th consecutive term as secretary of the club. New directors include J. H. Pennington, '97, Richard Wahl, '09, Thomas O'Neill, '19, John Shipherd, '21, Edwin Forstall, '21, and Alfred McNeill, '31.

The newly elected president, J. J. (Pop) Shipherd, then took the chair and stated briefly his hopes for the club for the coming year.

The meeting adjourned with the singing of one verse of the Alma Mater.

SO. NEW ENGLAND

Based on a celebration of the Lehigh-Yale wrestling meet to be held February 13 in New Haven, the members of the Southern New England club plan to attend the match and then hold a dinner in honor of the Lehigh team.

The club affair will be held at the Graduates' Club, 155 Elm Street, at 7:00 p. m. with Eddie O'Donnell, Yale coach, and his brother as additional guests of honor. Wm. A. Cornelius, executive secretary of the Alumni Association and W. R. Okeson, treasurer of the University have been invited.

Arrangements have been made to accommodate wives of the members if they care to come. Admission to the wrestling meet will be 40 cents and it will be held at 3:30 in the Yale gymnasium.

MARYLAND

The Lehigh Club of Baltimore, Md., announces that an Oyster Roast will be held on February 11 in that city and it is hoped that Coach "Billy" Sheridan and Coach Glen Harneson will attend with Wm. A. Cornelius of the Alumni Association.

Personals

OBITUARIES

M. P. Paret, '78

Milnor Peck Paret, C. E., retired consulting engineer died on October 16, 1936.

The Association regrets that no additional details concerning his death are available at this writing.

J. P. Suess, '78

John Paul Suess died on December 11, 1936. No details are available.

J. J. Zimmele, '81

Word has been received in the Alumni Office of the death of John Julius Zimmele, on September 5, 1934.

N. P. Massey, '95

Norman Peach Massey, C. E., died suddenly at the home of his sister in New Orleans, on December 18.

Mr. Massey had been in poor health for several years, but only a few months ago was sufficiently improved to resume his work.

He was engaged principally in structural steel design. In 1917 he accepted a position with the United States Navy Department in Washington, D. C., in charge of the design of a large armature plant in Charleston, W. Va.

He is survived by a daughter, a sister and a brother.

S. N. Riter, '95

Samuel Neely Riter, M. E., died in 1936, according to mail returned by the post office department.

Mr. Riter had been identified with the engineering department of the Spang Chalfont Co. of Pittsburgh, for a number of years prior to his death.

J. G. Petrikin, '96

Jacob Grafius Petrikin, B. S., former graduate manager of athletics at the University, died suddenly at his home in Bethlehem on January 10, following a heart attack. He was 64 years old.

By profession, Mr. Petrikin was an architect. After graduating from the University, he was employed at the Pen-coyd Iron Works, detailing steel, and later went with the Link-Belt Co. as a structural steel designer. He was treasurer of the United Barium Co. for a number of years and also for the Clinton Coal Co., which he helped organize.

He did a great deal of engineering work for the Norton Co. Later he opened an office as an architect in Cambridge, Ohio, and supervised the construction of numerous buildings in that vicinity. During the war, he again joined the Norton Co. on a special assignment of assuring it a full supply of coal and to report on the mines and mining conditions in the

various Appalachian fields. For these years he was also employed by the J. G. White Co. in a similar capacity.

In 1924, he took the position of graduate manager of athletics at Lehigh, and served in that capacity until 1933 when he was succeeded by Col. N. A. Kellogg as director of athletics.

While in college, he was noted for his ability to play baseball.

Three daughters survive him.

Levi Watts, '98

Levi Watts, Jr., E.E., died at his home in Arlington, Mass., on January 16, following a long illness.

After his graduation from Lehigh, Mr. Watts affiliated with the Westinghouse Electric and Manufacturing Company, and served as a salesman with the Central Station Department in the Boston office of the company.

His widow survives him.

W. R. Meyers, '07

William R. Meyers, E. M., superintendent of the Maas Mine on the Marquette Iron Range for the Cleveland-Cliffs Iron Company, died on Christmas Day, at Louisville, Ky. He was 52 years old. Pneumonia, following a period of illness, caused his death.

He joined the Cleveland-Cliffs Iron Company upon his graduation from the University. Mr. Meyers was well known in many states as a mining man, and had many friends on the Mesabi, Gogebie, Menominee and Marquette Iron Ranges, through his activity in the Cleveland-Cliffs Iron Co.

His widow, a son, and a daughter survive.

Nutting Wigton, '09

Nutting Wigton, E.M., up-state general commercial manager of the New York Telephone Company, died at his home in Londonville, N. Y., on January 20, following an illness of several months.

Born in Phillipsburg, N. J., on December 20, 1885, Mr. Wigton was graduated from Lehigh University with the degree of mining engineer.

In July of 1909 he entered the employ of the Pacific Telephone & Telegraph Co. With the Pacific Company, he held successively the positions of exchange development engineer, division commercial engineer, rate engineer and assistant to general manager.

Mr. Wigton became associated with the New York Telephone Company in 1926 as division commercial manager in the Bronx-Westchester division.

A man of widely diverse interests outside of his business activities, Mr. Wigton was active in social welfare. He was a director of the Albany Community Chest, a member of the executive board

of that organization, a trustee and president of the Albany Home for Children and a director of the Protestant Family Welfare, Inc.

Mr. Wigton served several terms as a director of the Londonville public schools. He was affiliated with the Schuyler Meadows and Fort Orange clubs. Serving in the 83rd Field Artillery, he was commissioned a second lieutenant in 1918.

His widow, one son and one daughter survive.

F. J. Callaghan, '19

The manager of the Marine and Auto Loss Department of the Insurance Company of North America, writes us under date of January 5, that Francis Joseph Callaghan died in January, 1935, at Chicago. No additional details are available.

E. G. Tatnal, '21

Miss Edna Grace Tatnal, M. A., died at her home in Harrisburg, on August 15, 1936, after a four-day illness.

J. J. Kenney, '22

James John Kenney has been reported deceased by the post office authorities.

D. G. Fink, '24

Donald Goodenough Fink died in July, 1936 from injuries received in an automobile accident.

At the time of his death, Fink had been living in Reading, Pa.

R. C. Latimer, '25

The Alumni Office would appreciate receiving additional information on the reported death of Robert Cary Latimer who formerly lived in Washington, D.C.

I. I. Marcovitz, '34

A tracer sent to Isadore Israel Marcovitz for information to be published in the new directory, has been returned by the post office department marked "deceased."

MARRIAGES

Class of 1935

Harry Beiter to Miss Mary Boyle in Bethlehem on December 26, 1936.

George Foscoe, Jr., to Miss Doris Lawrence of Bethlehem, on June 6, 1936.

Class of 1936

R. S. Dougherty, Jr., to Miss Martha Emery, on December 29, 1936, in Bethlehem.

BIRTHS

Class of 1936

To Mr. and Mrs. Howell Scohey, a daughter, on January 18.



save

HOW MUCH DOES THE TELEPHONE ~~COST?~~

It is easy to figure how much the telephone costs. It is not easy to reckon how much it saves.

A single telephone call may save a life—brighten a friendship or a day—sell a bill of goods or land a job.

One telephone call may be worth more to you than the cost of the service for months and years to come.

The telephone saves you priceless hours of time each week—spares you trips through snow and storm these uncertain winter days.

Without moving from the warmth and comfort of your own fireside, you are in touch with stores and friends and office—by telephone. The cost is but a few cents a day. In return, the telephone offers you

increasing measure of security, convenience, happiness and achievement.

Every time you call a number, you use some part of a nation-wide telephone system that cost more than four billion dollars to build and employs about 300,000 people. The facilities of this entire organization are yours to command—anywhere, any time, and at small cost.



BELL TELEPHONE SYSTEM

PERSONALS

Class of 1889

George W. Harris, Correspondent
12 Holland Terrace, Montclair, N. J.

The unanimity of expression in the many letters I received showing the fondness and respect of his classmates for Billy Butterworth, prompts me to refer to it here even at this late date—I only wish space would permit the publication of extracts from the individual letters.

It was a pleasure to hear from a veteran still in harness, S. E. Lambert of the Pacific Coast who writes:—

Mrs. Lambert and I came to California a few years ago, with the principal thought that I would retire from business. Doing nothing proved such a difficult task that I was admitted to the bar and opened a law office in Pasadena, with very satisfactory results.

Clattie Walker and his daughter live in Los Angeles. Walker is out of business and comes over to the house perhaps on an average of once in two weeks. He is as full of pep now as when he was in college.

Kellogg is in Bakersfield (a hundred miles north of Pasadena). Saw him not long ago. He looks nearly as young as he did when he left college.

Jimmy Stewart's ranch is not far from Pasadena. He raises unusual fruits.

Saw Hugh Frazier a year or so ago, and Charlie Hinchman; the latter was in the class only a relatively short time but he is of the calibre we all like to remember.

We have lost many of our men; a letter from any of them, even though brief, brings up many scenes that happened at college. As the number grows steadily less, news from any of the men seems of greater moment now than in the earlier years.

Lambert emphasizes a fine thought in the final paragraph of his letter. We all would welcome knowing more about each other and these columns serve as a clearing house or exchange, to which each one writing, writes to all.

Here is an item from Charles E. Dickerson, writing from Stockholm, Sweden:—

Strange things happen to one. On the twelfth of August I had dinner in Stockholm with Mrs. Frank Dravo, wife of Dravo, '87, who was killed in a railroad accident some years ago. You will remember him as Ralph's brother. We talked a great deal about Ralph, as you can easily imagine. It seems remarkable that I should meet her here.

More about Ralph later I hope. The momentum attained by the Dravo Corporation during the lifetime of Ralph and his brother seems to continue, as press reports state that the Dravo group has recently secured a \$4,000,000 contract to sink shafts connected with the Delaware River water project of New York City.

John J. Lincoln also seems to belong to the Wanderlust Club. Last summer John and Mrs. Lincoln got off on a long talked of automobile trip to Montreal and the Maine Coast—had a fine time—saw many new places and met a few old friends on the pilgrimage. Again more recently, Lincoln reports that he and his wife had a very nice trip with a party of about 250 members of the American Institute of Mining and Metallurgical Engineers, to Mexico City. A pamphlet giving the high lights of the Mexico trip indicates that the engineers had a great opportunity to see the cap-

ital city and the beautiful, romantic country surrounding it.

Congratulations to our Alma Mater and the future winners of the \$100 prize so generously offered by Wm. A. Cornelius to the Senior Lehigh student in mechanical engineering who is judged to have profited most by his opportunities at Lehigh University. The award will be based: 70% on scholarship, 20% on attainment in general culture, and 10% on development in personality. To be eligible for the award, a student's scholastic standing must be in the top quarter of the class in the college of engineering.

Cornelius' life work and leading position in a mechanical field and also his participation in civic and social activities doubtless suggested to him the great advantages accruing to a man possessing the qualifications emphasized in the terms of the award offered. Again congratulations all around.

As one man to another—greetings Newton Guy Smith, '06 correspondent, and much appreciation of the kindly sentiment expressed toward the old '89-ers. Maybe that is right—some of the class certainly seem to have taken a sip or two of the "fountain of eternal youth"—eternal as long as they live.

Class of 1891

H. T. Morris, Correspondent
67 W. Market St., Bethlehem, Pa.

Forstall wrote me from Denver expressing appreciation of my substitute efforts in his column. He said nothing about himself or his plans.

Augur writes from Chicago sending a photo taken recently expressly for our book, as requested by me. His letter notes interesting memories of college days and sends photos of our '91-'90 cane rush.

Boatrite and Mrs. Boatrite both tell me in informative letters from the Philadelphia home of their interest in the book.

Bucher sent from his New York City office a new and recent photo for the book. He lives in Fort Lee, N. J.

Mrs. Eric Doolittle sent from Wilmington, Del., an excellent photo of our brilliant departed astronomer-classmate. Notes for his "record" are to follow soon.

Mrs. Hermann Hesse has given me a photo of her distinguished mining-engineer husband who has been gone from Terra 13 years.

Hillman writes again from Buffalo encouragingly and appreciatively as always; and always with some worthwhile information.

Edwin Lefevre arrived from Italy shortly before Christmas, improved in health but "confronted with about 1,000 letters requiring attention" in his Atlantic City apartment. After the letters are disposed of, he promises me a visit.

Leoser died May 1, 1913 at the bachelor home in South Orange, N. J., which he and Reets had for years maintained.

Reets writes this from New York City and gives some facts that neither the Alumni office nor our class officers knew.

Frank McCall sends new data from Buffalo. His old interest in our class and college has been revived.

Miller writes from Buffalo that he will send the promised articles for the book before he and Mrs. Miller leave for Europe.

Paine, busy Librarian-editor-columnist in Syracuse, N. Y., celebrated the last day of the Old Year by sending in his much prized editorial. His personal "record" had been delivered earlier.

Reets, in his first communication with me in 47 years, pleased me greatly with kind words of appreciation and inspiration. I hope he will advance the date of his promised Bethlehem visit to a date earlier than June and that he will then return on Alumni Day.

Shellenberger's widow from her home in Bayonne this morning adds to data already sent me for her late husband. Leidy was at our reunion on June 6 but passed out of this life just seven weeks later.

Shimer's sister, who lives in Easton, has sent me a military photo of Ira taken shortly before his death in 1919 in the United States Philippine Army Service.

VanderHorst wrote Forstall before Christmas that he was recovering from a five weeks in bed sickness. I recently wrote Van hoping he has completely recovered, but at this writing I have no news of him to pass on to you.

Copies of the BULLETIN are mailed each month to every living '91 man. Thus I hope to reach every one with the message: The time has arrived when the preparation of "records" for the book should no longer be delayed. The fifty who have already sent in their data are naturally looking for the book to be published as soon as it was promised. But you will realize that binding and shipping cannot be undertaken until *all matter* has been printed, proof-read, and proof-corrected. Will each of you resolve to be first with data rather than last?

Class of 1894

T. G. Empic, Correspondent
Box 772, Wilmington, N. C.

Not so long ago there came the following notice: "Sykes, F.G., retired from active business. Township Committeeman, Cranford, N.J.; Chairman, Finance Committee; also Chairman, Emergency Relief. Res.: 319 Hampton St., Cranford, N. J."

By and large I do not like this "retired from active business" stuff, which trickles through the mail, but evidently Sykes is still very busy in a way. As soon as this came I knew that it would not be long before I heard something about his other self, E. O. Warner, and the first thing that greeted my eye in the December BULLETIN was his Honor's picture. It certainly seems that we should see Sykes' biography in the next



Union is generally credited with bringing strength and nowhere could this be more true than with regard to the alumni of a great university.

Lehigh University has been fortunate in that her alumni have always been united to give strength to her prestige, support to her financial needs and encouragement to her progress.

They have differed, these alumni, in many ways. They have come from many walks of life, have attended Lehigh in different eras and in some cases have gone to the far corners of the earth.

But when Lehigh's welfare is considered they are as one man in their interest. Remembering their college years, they are anxious that the undergraduates of today have the same, if not more, advantages.

This, in turn, will be reflected in the Lehigh alumni group of tomorrow. Pride in personal accomplishment will be shared with that of Alma Mater for each success of a Lehigh man is an honor to his University.

And the University grows in the union of such collective strength to weld an endless chain of education and achievement — the final reward for service.

LEHIGH'S BEST ADVERTISEMENT IS HER ALUMNI

issue because I do not recollect in college ever seeing one of them that the other did not turn up in five minutes.

It seems that A. F. Brigham can be found at P. O. Box 85, Sudbury, Ontario. Presumably it was not cold enough last winter for him where he was.

Class of 1896

W. S. Ayars, Correspondent
409 Engineering Bldg., Columbia Univ.
New York City

Once more my faithful but frequently annoying calendar reminds me of this contribution, and I am, as usual, confronted by the task of trying to make something out of nothing. The only news I have from the Alumni Office is a bunch of changes of addresses, and as it is evident that nobody in Ninety-Six ever writes to anybody else, why bother to fill up space with this information?

As usual, I have heard with more or less regularity from Lee Marshall, Cully Daboll and Bill Dickerman. You will all, I know, be shocked to learn of the sudden death of Bill's son, Charles Herbert Dickerman, 27 years of age, recently. Cully seems to be quite himself again, after his long struggle with the streptococcus bug, but the letters that pass between him and me are not exactly suited for publication, even in so modern and sophisticated a journal as the BULLETIN.

At present, my own job is rather uninteresting. Last Wednesday, January 20, all regular lectures and other classes stopped, and two weeks will now elapse for the giving and grading of examinations. On Wednesday, February 3, all will be over, and the second half-year will start. Which reminds me of the lack of standardization to be found in the "shop-talk" of American colleges and universities. Here at Columbia, the first half of the academic year is known as the winter session, and the second half as the spring session. In our time, at Lehigh, we spoke of the first term and the second term; and, as I recall it, the first term was a short one, ending with the Christmas vacation; and the second term was a long one, beginning just after the Christmas vacation and extending to Commencement in June. We used to call our program of class assignments "The Roster"; here, we call it "The Schedule"; and I have known institutions where it was merely "The Timetable." When one of us drew a failure not bad enough to throw him out, he was entitled to a "re-examination," commonly known as a "re." Some colleges call it a "supplementary examination," and it becomes, in student vernacular, a "sup." Others, again call it a "make-up."

Again, one now engaged in professional work, if he has reached the wisdom of maturity of three-score-years-and-plus, cannot help but notice the vast increase in administrative work in the usual run of college or university. I cannot recall, in our student days, that there was one woman employed on the campus, with the exception of certain elderly females who "cleaned up," and I do not think

there was any clerical or secretarial help with the exception of the ancient and marble-hearted person who kept the records in the president's office. There was no dean, no bursar, no registrar, no director of admissions, no student advisers, no vice president, no superintendent of buildings and grounds; but somehow the work got done, and apparently, pretty well done. For one thing, as I remember, the Lehigh Faculty of those days were so old-fashioned that they felt they were employed to *teach*, and not to do "research." However, though I feel strongly on this subject, I will not let my emotions run away with my pen, lest I be pilloried, racked, and burned at the stake for rank heresy. However, I am reminded of an occasion when a certain professor of engineering, not many years ago, was talking to a group of students who were due to graduate shortly, about the sort of employment they might reasonably expect to get, and one of the students asked him what were the chances of getting a job as a "research engineer"? The professor looked at him severely and then stated with emphasis: "Brown, there 'ain't no sich a animale'!" He then went on to explain that research had a perfectly legitimate place in industry, but that research work of *any* sort was *not* engineering; it was the engineer's job to take the results obtained by the research men, and apply them to the benefit of mankind; in other words to follow out the words on our own Lehigh seal: to be "minister et interpres naturae." But I have always felt that we still need an accurate and comprehensive definition of that word "engineer." Would any of you like to try your hand at such a definition? A prize of one pair of 1934 New Jersey license plates for a motor vehicle will be awarded to the man who sends in the best definition, to be sent—the prize, I mean—charges collected.

While preparing this copy, I received a letter from Bob Laramy, who is superintendent of schools in Altoona, Pa., giving me some information on the death of Jack Petrikin.

Laramy says:

Dear Bill:

Probably you have had the word on Jack Petrikin. It came to me from Bethlehem this week. For some reason he was not with us last June. He is given as born in Lock Haven, but I know he lived some time in Jersey Shore which is near Lock Haven. Around 64 is the difficult time.

I have been very busy all along. My wife is now again about fully recovered from a five year period of nervous depression. Our last of five graduated from Penn State in June and is now in the Pennsylvania School of Social Service Work in Philadelphia.

(We have two grandchildren, pictures of whom are enclosed as they should have been before Christmas.)

Last July was spent on a trip taking in Portland, Seattle, Victoria, Vancouver, Jasper Park, Edmonton, Calgary, Bauff, Lake Louise, Saskatoon, Winnipeg, St. Paul, Milwaukee, Muskegon and White Lake, motoring home from there. I could get no trace of word on Babe Bartles.

My high school which had 1,000 graduates in June is one of the 30 in the United States trying experimentally certain "progressive methods." It is stimulating to many of the faculty. I have no other word on classmates, though I sometimes read interesting notes about Bert Beck.

Best wishes,

Boe.

I appreciate this note, Bob, and just to make the rest of the members of the class ashamed of themselves, I'm having it reproduced in the BULLETIN. Maybe it will induce some of them to write me something that I can use next month.

Class of 1897

J. H. Pennington, Correspondent
P. O. Box 159, Trenton, N. J.
This letter is the image of a murder done in Vienna!
Gonzago is the duke's name; his wife
Beatrice:
You shall see, anon, 'tis a knavish piece of work.

Your intimacy with Mr. Shakespeare's work will enable you to at once detect the one word substitution which I have made in the above delightful passage, pilfered from Hamlet.

Having had only a month to write to the best class ever, you realize the shortness of time allowed for so Gargantuan an undertaking. My mail has lately been all cluttered up with letters from '06 men, N. G. Smith and Stouffer in particular, both of whom are clamoring for a '97 forty-year book. Stouffer sent me a lot of fine material telling how he went about it for '06, also a finished volume which is indeed a good piece of work. This material furnishes a mighty good guide for compiling the '97 book, but not for the 40th anniversary.

We have been so busy lately that there has been no time for any exchange of ribaldry with Bill Ayars or others. Our time has been occupied chiefly in lying to our customers who have the effrontery to demand shipment of their orders. Queer things, these customers.

Pop Hale has written, asking when the group around New York will be called to arrange for the reunion in June. Have asked Bnd to name a day for this meeting, and all the faithful whom we can locate among the cliff dwellers will be duly informed. Hotel Bethlehem has told me that our dinner room is being reserved.

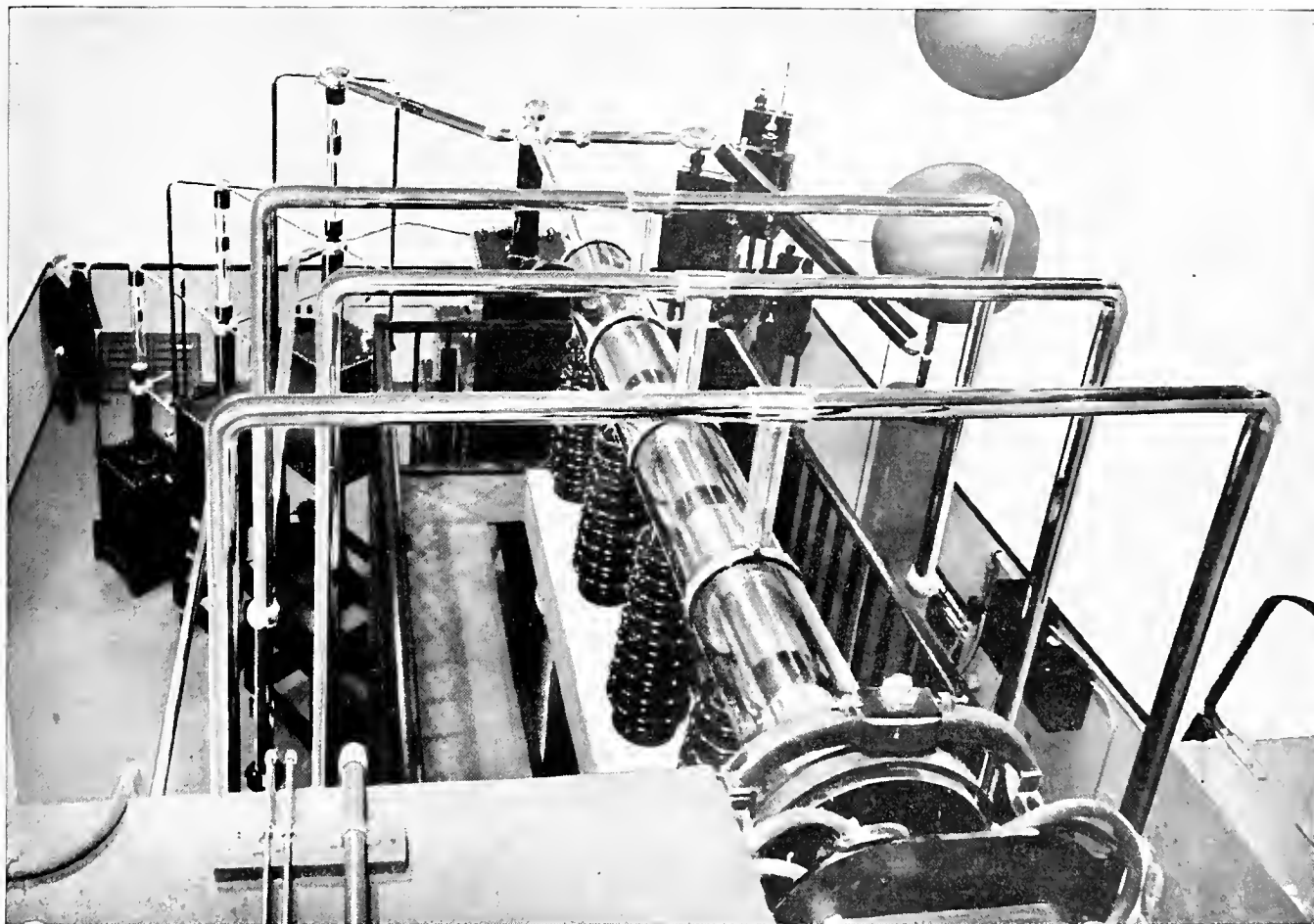
After reading this far, if at all, you can see how aptly the quotation at the head of the column describes this creed, and as the editor needs the space, I shall leave you with whatever bad impression I have made.

P. S.—The band needs two more saphones.

Class of 1898

H. M. Daggett, Correspondent
60 E. 42nd St., New York, N. Y.

It is no new thought that I am a "bum" Class Correspondent, for if I weren't this column would have some news in it once in a while. But what is a poor fellow to do when he has no ability for spinning yarns about nothing and can't develop sufficient interest to have class news sent to him? If I did not try to have some message in these pages every month, and were not trying to develop enthusiasm for our 40th Reunion in 1938, I suppose my Lehigh spirit would be at a low ebb also. But all of us have



As Much As \$75,000,000 Worth Of Radium

THIS single x-ray tube produces as much radiation energy as would radium worth \$75,000,000. This tube—one of several developed and built by G-E scientists—is helping medical science to make further and more rapid gains in the battle against disease.

For more than 25 years, General Electric research scientists have led the steady improvement in x-ray development. From their work—with thousands of volts from giant transformers, with tanks of purified oil—have come better and ever better x-ray tubes. Physicians and surgeons have gained more compact and more powerful tools for diag-

nosis and therapy—better tools with which to safeguard your health.

Other developments in the Research Laboratory, in Schenectady, also work for better health. There is the inductotherm, which permits medical science to produce, at will, curative fevers in the patient's body. There are sources of ultraviolet radiation for the treatment of rickets in children. And in all these aids to medicine, the results of years of scientific investigation are being applied to the relief of suffering, to the treatment of disease, to the improvement of the health and well-being of millions of people.

*G-E research has saved the public from ten to one hundred dollars
for every dollar it has earned for General Electric*

96-329DH

GENERAL  ELECTRIC

a Lehigh Club somewhere near our bailiwick and we should go to those meetings. I seldom go myself to the very good meetings in New York, because so many of the older fellows stay away and I see so few men of my day in college. It is so easy to have other affairs that claim our time, but with a little effort, I feel sure that nothing we can do will return so much satisfaction as the associations we have with fellow Lehigh men.

If we mingled together more, I believe enough class information would come to me to make these monthly letters worth while. I appeal to you, for what *you* will get out of it, to give me news of the class to pass on to others.

During the past month, "Paddy" Pad-dock and "Jack" Horner called on me and these two boys are as peppy and enthusiastic as ever. They are plugging away on our Reunion matters, and I want to tell you men who haven't responded to their communication, that you will miss a great event, if you are backward in lining up for that occasion. Our class was never noted for doing outstanding things, but one is being planned that will be something to be proud of and remembered and lived over and over as long as we live.

Class of 1899

Arthur W. Klein, Correspondent
43 Wall St., Bethlehem, Pa.

I have just received the following information from the Alumni Office. The residence address of Charlie Masson is 315 So. Boyle Avenue, Los Angeles, Cal.

Charles (Charles Pease) Matheson is vice president and treasurer of the Pittsburgh Building Specialties Co., 524 Fourth Avenue, Pittsburgh, Pa. His residence is at 5610 Elmer Street, Pittsburgh, Pa.

I had a letter from "Rain" Horner a few weeks ago stating that he was just back from a sojourn at the Mayo Sanitarium, Rochester, Minn. He was feeling much better but thought of spending the winter in Florida.

A Christmas card from "Deacon" Wentling was inscribed:

"Dear Pop: Here's the check for class

dues and I hope you will be soliciting me for many years to come." Signed "The Deacon." Isn't that a wonderful spirit!

Wright Yontsey writes that "nothing will stop me from attending our 40-year class reunion." Wright had made all his plans to attend our last one but business interfered at the last moment.

Freddy Wettlaufer called my letter asking for class dues a "touching one." Freddy and Mrs. Wettlaufer entertained my family and me at their hospitable home in Bay Shore, L. I., at a New Year's Eve celebration. This party has become an annual event so far as Mrs. Klein and I are concerned. We visit her relatives during the Christmas holidays each year in Huntington, L. I., on the north shore and are thus within visiting distance of the Wettlaufers.

Freddy reports that the business of which he is president—The Independent Silk Dyeing Corporation of Farmingdale, L. I.—is in a very flourishing condition. He came through the depression with very little difficulty.

Class of 1901

S. T. Harteman, Correspondent
110 Wesley St., Bethlehem, Pa.

W. M. Gilbert, who made his first visit to Lehigh since the class graduated at the 35th reunion last June, is responsible for the interesting news item on George W. Welsh, familiarly known as "Bears," "Terry," and half a dozen other nicknames. "Bears" has been "lost" for a good many years and the rest of the class will no doubt be glad to learn of another famous member of 1901. According to Billy Gilbert, the article is taken from the General Electric Test Magazine:

"GEORGE W. WELSH, Lehigh '01, Schenectady Test, '01-'05, is vice president of the East St. Louis Railways, vice president of the East St. Louis Light & Power Co., the Alton Light & Power Co., and the Alton Gas Co.

"After leaving test, Mr. Welsh went with the New York Central Railroad in New York as assistant engineer in connection with the electrification of the Grand Central Terminal. In 1909 he was made assistant electrical engineer of the Southern Pacific Company at San Francisco, where he remained until 1914. In that year, he went to East St. Louis as superintendent of power of all the railways and light and power companies, and was appointed chief engineer of those companies in 1919. In 1924, he left the light and power companies and became assistant to the president of the railway companies and in 1926 was made vice president of those companies. In 1932, he was appointed to his other vice presidencies."

Charles McGonigle (Mac) is president of Poole & McGonigle, Inc., 6330 Halsey St., Portland, Oregon. For the first time we learn that his home address is Oswego, Oregon. Mac almost got back for the reunion last June, and we have yet to learn why he did not show up for it.

Class of 1902

A. A. Diefenderfer, Correspondent
725 W. Broad St., Bethlehem, Pa.

Men of 1902! Your 35th Reunion is only four months hence. What are you going to do about it? You will certainly want to come back and see the old place once again. Several of our numbers have crossed the Great Divide. Only a few of us like Landis and Parsons ever get our names in the personals of the daily news for greatness.

Be this as it may, we will all be anxious to renew old ties in June. Begin to plan now for that great day, June 12, 1937, when the Sailor boys will again be in line.

Class of 1903

E. R. Morgan, Correspondent
Lehigh University, Bethlehem, Pa.

DAVID R. SMITH
Drumlin Farm
Stanley, New York

Beaufort, S. Car.
December 29, 1936.

Dear Bob:

Your letters have at long last found me here at Beaufort, where I am spending the winter.

When I tell you, as I do, that the town has on Main Street a section of fence with a ten inch top board laid horizontally and marked "For Whites only" I have described the town and explained why you'll get no letter from me for the next issue.

If, however, I can find a stenographer (which I doubt) you may get a copy of a letter to Ivan. It's had enough to have to write a 300-word letter to that skunk let alone a pen copy.

The electric light here is of such varying cycle that I imagine Raymond Hunt is in the vicinity. If he is, let me have his address and I may give him the privilege of buying me a lunch.

Mine host (Haskel) was a friend of Weary Chamberlain in Chattanooga.

Yours,

D. R. S.

January 25, 1937.

Mr. David R. Smith,
Beaufort, S. Carolina.

Dear Dave:

For a person possessing a pen which does not choose to run, you did a fine job in your short note to me. If I had had my wits about me, I would have sent a copy of your note on to Ivan Rice and then it would not have been necessary for me to publish one of my own letters just to fill up space in the ALUMNI BULLETIN. Ivan would have risen up in his wrath at the odorous epithet you used and smitten you at length and from a distance. The fact is, I am sending a copy of your note, now that I think of it, and I hope he opens up on you so that you will draw a bevy of stenogs and furnish me with so much copy for next month that I will be obliged to delete a lot of it.

How did you like the exchange of letters between George Stull and Pete Reese in the January BULLETIN? Pete sent me a print of a summer surveying camp group which is worth seeing. I wish it were clear enough to reproduce in the BULLETIN because it would give you a few minutes of genuine fun. I'll keep it to show to you the next time you get back to Bethlehem.

As for Raymond Hunt, whose address is 66 Carolina Apartments, Wilmington, North Carolina, I hope you can get together with him. I have owed him a letter for over a year and a half. If you get over to Wilmington, you will find him running his job with great efficiency but you will also find that he is being run quite as efficiently by one of the younger generation who, I judged from the picture he sent me, must be about 3 years old by this time.

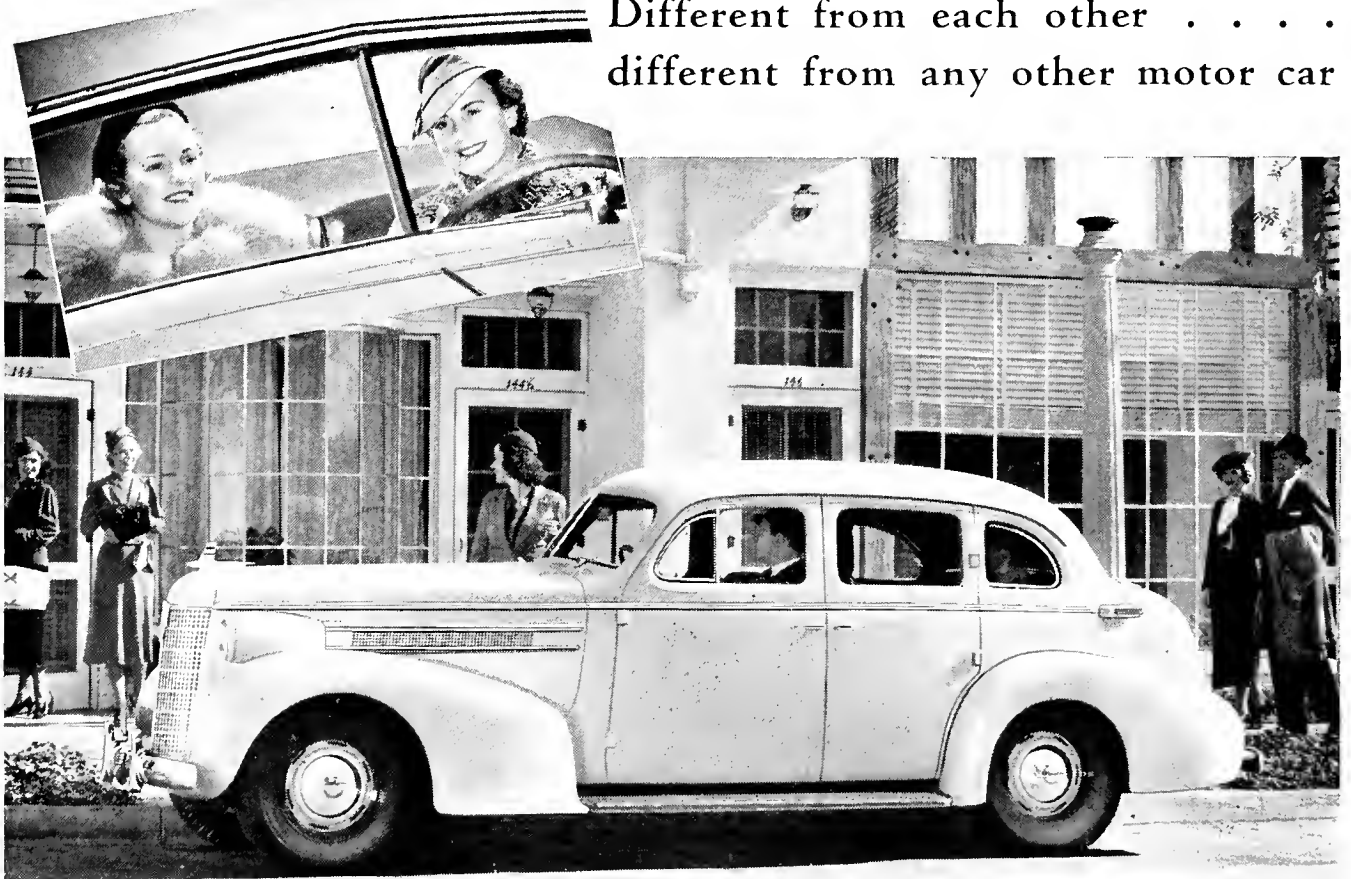
Perhaps by this time you have had the opportunity of getting acquainted in Beaufort. (Or don't you sit on the fence with the rest of the whites?) If you have found that the town possesses a stenographer, I hope you will write a hot shot at Ivan before he gets a chance to shoot at you. If you do, please be sure to send me a carbon. If the town cannot boast of such a young lady and you want to pen a letter to Ivan, I am sure he will send it on to me, with a copy of his reply. Should you doubt his integrity and have any confidence in mine, you can

PLANT SUPERINTENDENT

WANTED: Assistant to Plant Superintendent for a Carbide electro plant in Sweden. Must be a citizen of Sweden desiring to return permanently, between 30 and 40 years of age, metallurgical or chemical engineering, trained in United States. Salary about \$4,000. If interested, send experience record to Lehigh University Placement Bureau immediately.

"Both Style Leaders!"

Different from each other
different from any other motor car



THE EIGHT

SIX OR EIGHT, your 1937 Oldsmobile gives you the satisfaction of driving a car that is truly individual . . . *distinctive in styling . . . thrilling in performance . . . and complete with every fine-car feature for comfort and safety.* From Knee-Action Wheels and Dual Ride Stabilizers to Unisteel Turret Top Bodies by Fisher and Triple Sealed Super-Hydraulic Brakes, Oldsmobile gives you everything you really want in a modern, up-to-the-minute car... at prices that set the pace in value!



THE SIX

Oldsmobile

SIX & EIGHT

DELIVERED PRICES AT LANSING, MICH.: Sixes, \$765 and up; Eights, \$880 and up; subject to change without notice. Cars illustrated: at top, Eight 4-Door Touring Sedan, \$1015; lower right, Six 4-Door Sedan, \$885. These prices include safety glass, bumpers, bumper guards, spare tire and tube, rear spring covers. Transportation, state and local taxes, optional accessories and equipment -extra. General Motors Instalment Plan

send the letter to me and I will have a copy made before I forward it to him.

Sincerely yours,

Bob.

Class of 1904

H. J. Hartzog, Correspondent
Wilbur Trust Bldg., Bethlehem, Pa.

An secours! An secours! Il y a eu un accident. Y a-t-il un médecin dans la maison? Don Trentoni Pacquerre (Packer a vous), l'avocat celebre, a perdu connaissance. Ce livre peut vos aider comprendre. Voulez-vous lire ceci, adressez a vous correspondant?

DONALD J. PACKER
 American Mechanic Building
 Trenton, N. J.

January 19, 1937.

Childe Harold:

You asked for it, you and a Certain Party... although, come to think of it, Simon Legree, II, of McKeesport didn't exactly ask. Anyway here it is, and if it does not altogether suit you, there will be another long wet week-end before the morning of the 25th inst. and you can expurgate the damn thing at your leisure.

What a hot spot to land upon, to let out some sort of a squawk right on the heels of Andrew's dignified and stately effusion in the January Bull! The Old Boy seems to imagine that I know something or other about party politics, whereas all that I know for certain sure is that The Poor Simp (alias A. Mack) made a great big fat mistake out in that snuck-filled room in Cleveland last June, not to renominate Dolly Gann, the very best Vice we ever had of any party. Long may she wave.

I find that I really do have one item of very serious interest to divulge, viz: Our class "band" at the reunion in '39 will be a horsedrawn hurdy gurdy, with Andrew done up as a Spanish Bandit (he has just the proper eye-brows) and Kink Johnson as his beautiful singing and dancing daughter (he still has just the proper pulchritude) with a cascade in each hand. The pantomimic horse will afford a couple of other jobs; I've nominated myself to be the horse's neck and Andrew is receiving nominations for the Horse's—what is the polite word—rear elevation.

St. Francis Sinn has for some little time past made contract his major avocation (et Mon Dieu! Mon Dieu!! Mon Dieu!! quel changement extraordinaire, sinistre et diabolique ce jeu a produit dans un disposition si bien aimable d'autrefois; I would have written this whole business in French if there were any accents on my typewriter). Frank will very shortly publish a series of hand-books on the subject to the further dismay of Culbertson, Simms and numerous others.

Be good if convenient, everybody, and don't fail to show up in 1939—just why Andrew hankers to go back so damned often I can't fathom, Carl's being hermetically sealed up and Charlie's having been turned into a lunch counter. So long gentz, or as Johnny Miller would say in Mexicanish,

Hasty lumbago,

DON PACKER.

P. Scriptum and Nota Bene: My specially extra best, please to your eminent fellow-townsmen, R. Parkyerkarkas Hutchinson.

D.

Ne vous remercie, mon confrere distingué. Vous m'aidez tres genereusement et tres capricieusement.

(Aside to the T. B. M.'s of 1904: translations, personally signed by Don will be cheerfully forwarded by him, upon receipt of stamped, addressed envelopes.)

Class of 1905

W. H. Lesser, Correspondent
 900 Clay Avenue, Scranton, Pa.

Bill Estes was elected to the Board of Governors of the American College of Surgeons. This is a distinct honor and the congratulations of the class are extended to Bill.

Heard from Bob Boehringer and he is getting over the depression in good shape. He hopes all the boys are doing as good or better.

If you want to know something about the anthracite coal business, read my article in the January issue of the American Mining Congress Journal "The Trend in the Anthracite Industry."

Class of 1906

N. G. Smith, Correspondent
 Fort Pitt Bridge Works, Oliver Bldg., Pittsburgh, Pa.

Though "Van" passed on it does not follow that '06 hasn't an enthusiastic lunch down in far-away South Africa. Under date of December 3, 1936, a letter left there for '06 and Van's former buddies addressed to your correspondent, in which Mrs. Van enclosed a photo of the van Reenen beautiful home—"Vryheid" 159 Celliers St., Pretoria. With it came to '06 "Greetings and every good wish" along with a collection of South African stamps for my 15 year-old Kiddo, Donald, that made Don's eyes "pop."

Among other things Mrs. "Van" says: At the reception for us in P'gh at the Duquesne Club—sponsored, I believe by "Paddy" McNiff, who followed Van by only a short interval and which reception took place on the thirty-first of July, 1932, I believe you told Van and me that one of your boys expressed a desire to possess stamps of the Union of South Africa. This will be late for Christmas but every good wish to you and the others of '06.

It's always a busy guy that picks for himself an additional load to carry. When he has been carrying it a long long time and can't turn back—then his better-half commences to get nervous prostration and wishes there was no such thing as L. U. '06 which would cause her husband to go daffy on a dry subject such as the 30-year '06 Class History.

However, when the thing is done with a few hours to spare and no financial deficit then both sit back, enjoying the plaudits of the multitude and the peace that passeth understanding of one who "never does nothin' fer nobody."

What does he do next? Sic the same kind of a job on some other boob! Right.

Here's a few extracts from our own "Chris" Stonuffer's pep letter of January 18 to J. H. Pennington, class correspondent for '97 (poor Pop):—

Just as a newly married couple delight in urging their unmarried friends to make the same plunge, we of '06 encourage other classes to plan a 25, 30, 40 or 50-year Reunion Class Book.

True enough, there's plenty of spinach connected with the enterprise—but, take it from me, when you get the job done you'll be reveling in as luscious a mince pie as your mother or your wife ever dreamed of.

With a prelim. like that Chris proceeds to do the good Samaritan act of sending "Pop" Pennington copies of '06's advance questionnaire literature and follow-up entreaties, also the finished '06 30-Year History, with a consoling confidential assurance that "about three weeks before our Reunion date we sent out 19 Night Letter Urgers to tardy contributors that brought in 11 stories."

Best regards to '97 and their coming 40th.

Class of 1907

J. B. Carlock, Correspondent
 1301 Beechwood Blvd., Pittsburgh, Pa.

Before you receive this issue of the BULLETIN, you will have received my letter regarding our 30th Reunion and I hope a good many replies will have been sent in. If you have not written me about attending and what you think of the regalia matter, please do so promptly. The Hotel Bethlehem has reserved the Fountain Room for our Class Dinner on Saturday night.

deCourcey Browne's new mailing address is P. O. Box 1616, Hollywood, Cal.

E. K. Collison is vice president of the George A. Fuller Co., 111 W. Washington St., Chicago, Ill. He is living at 1635 Hinman Ave., Evanston, Ill.

A. A. Davis is engaged in mortgage financing at 420 S. Ocean Ave., Freeport, N. Y.

Wm. T. DeBaufre is chairman of the Department of Engineering Mechanics at the University of Nebraska. He resides at 2039 S. 23rd St., Lincoln, Nebraska.

W. A. Earnshaw's present address is 1523 N. Hoover St., Los Angeles, Cal.

George C. Edwards is Supervisor of U. S. Treasury, State Accounts Office, 1060 Broad St., Newark, N. J. His residence is 22 Hamilton Ave., Crawford, N. J.

H. J. Groeninger is in the Chief Engineer's Department of the Pennsylvania Railroad at Pittsburgh. His local address is 510 South Ave., Wilkensburg, Pa. His permanent address is 324 N. Paca St., Baltimore, Md.

Ralph W. Kinsey is Sales Manager for Pomeroy's, Inc., Reading, Pa. He lives at 1043 N. Front St.

Robert MacMinn is contracting manager for the Bethlehem Steel Co., 400 N. Michigan Ave., Chicago, Ill. He is living at 1501 Hinman Ave., Evanston, Ill.

Class of 1908

W. D. Sanderson, Correspondent
 Box 175, Pittsford, N. Y.

Lewis Heck is now Chrysler-Plymouth dealer in Frederick, Md., trading as the Heck Motor Co., 130 W. Patrick St.

Morris Sayre missed the New York reunion meeting because of another trip to Santo Domingo.

A recent issue of the Reading Jersey Central Magazine shows a picture of John R. Prizer, Assistant Division Engineer, C. R. R., at Manch Chunk, Pa. Incidentally, John looks the same as he did in September, 1904.

Your class correspondent has 268 names on the 1908 class list comprising

The Flintkote Co.

Industrial Asphalts Division

50 W. 50th St., New York

Steel and Concrete
 Protection

Waterproofing
 Industrial Flooring
 Asphalt Specialties

STEPHEN PALISKA, '26

Luxurious Refrigeration

...AND TWO COLD FACTS



TODAY, in thousands of homes, refrigerators formerly considered as highly satisfactory, are being replaced with plus-powered Kelvinators.

For the new Kelvinator is a luxurious refrigerator. Luxurious in appearance—in convenience—and luxurious in service. It does more. It saves more. Its purchase is a genuine economy. Judge it yourself by these two facts:

FACT 1—The new 1937 Kelvinator is plus-powered. It has as much as double the cooling

capacity of other well-known refrigerators of equal size.

FACT 2—The new Kelvinator runs only half as many minutes per day—during the rest of the time it maintains low temperatures using no current at all.

The new Kelvinator costs more to build, but it costs no more to buy than a less powerful, less economical refrigerator. It can be bought on your dealer's special time payment plan—or for as little as 90¢ a week on the Kelvinator ReDisCo Plan.



Kelvin Home

WHERE A NEW WAY OF LIVING BEGINS . . .

equipped with Kelvinator electric refrigeration, air conditioning, automatic heating, electric or gas range, washing machine, ironer, and automatic water heater—can be built for less than \$7,500. The Kelvin Home Book, with exterior views, floor plans and description of equipment, is now available without cost wherever Kelvinator products are sold.

Nash-Kelvinator Corp., Kelvinator Div., Detroit, Mich.
Factories also in London, Ontario, and London, Eng.



PLUS-POWERED *Kelvinator* CUTS THE COST OF BETTER LIVING



NASSAU IN THE BAHAMAS

Winter haven of two continents—so much, so near, and for so little! During the months of January, February and March no less than 48 cruises will leave New York on trips which visit Nassau—one almost every day! Round trip rates as low as \$70. From Boston, cruises sail every other week—6 days from \$130. From Miami, two hours by air (daily service—\$35 round trip) and overnight by steamer (as low as \$19.50 round trip).

For full information see your travel agent or

NASSAU, BAHAMAS INFORMATION BUREAU

30 Rockefeller Plaza, N.Y., Columbus 5-4213
or Development Board, Nassau, Bahamas

Wm. Wirt Mills, Jr.

Manufacturers' Representative

30 Church St., New York City

The Lowe Bros. Company

Paints, Enamels, Lacquers
and Varnishes

Dake Engine Company

Contractors' Equipment, Steam and
Air Motors, Hoisting Equipment,
Pumps and Marine Machinery

Wm. Wirt Mills, '87

Wm. Wirt Mills, Jr., '33

AMERICAN ACADEMY OF DRAMATIC ARTS

Founded in 1884 by Franklin H. Sargent. The
first and foremost institution for Dramatic
Training in Acting, Directing, and Teaching.

Spring Term Begins April 1st

For Catalog address Secretary, Room 180,
CARNEGIE HALL, NEW YORK

so far as he can tell all the men who were ever connected with the class. Of these, 5 have died, 3 were advance students, 7 were members of other classes who graduated with 1908, 93 were those who were with the class a year or so and have not continued their affiliation, which leaves an active list of 161 names. The latter is divided into 108 who entered and graduated with our class and 53 who were members of the class but did not graduate with us.

After reading the above figures you fellows can answer for yourselves the question of why we can't dig up more dope for this column. There are certainly enough customers to furnish plenty of news—all we need is the transmission. Something of interest must happen among you live-wire Lehigh men every month. Why not tell me about it.

Some active effort has been put forth recently to increase the number of BULLETIN subscribers in our class. Thanks a lot to all those who have helped.

Oram Fulton and his family are making a "grand tour" of South America via Panama Canal, down west coast, across the Andes and back up the east coast. It makes Florida and such stuff look like plain commuting.

A small but enthusiastic gathering was present at the annual Mid-winter Reunion at the Downtown Athletic Club, New York City, which was held on January 22 instead of in February as originally scheduled. Several valuable suggestions for the 30th Reunion resulted from the discussions.

E. F. Petersen is temporarily located at Washington, Mo.

Arnold Guerber's new address is 630 Clarkson St., Denver, Col.

Come on now gang, let's have a lot of new stuff for the next issue.

Cheerio!

Class of 1910

M. J. Jacobs, Correspondent
837 Tioga Ave., Bethlehem, Pa.

Have a Christmas card from Cap Treat who has been out in the Philippines for the past several years. He tells me he is leaving the outfit with which he has been connected and is going into Mindanao. He says, "Stock boom, new job, typhoons. A great life." Cap seems to enjoy being in the Philippines and certainly he has the advantage over us for weather. His new address will be:

Surigao Oriental Mines
Surigao, Mindanao
Philippines Islands

S. P. Hess is now sales engineer of the Detroit Steel Products Co. in Detroit and lives at 198 Montrey Ave., Highland Park, Michigan.

W. W. Broadbent is assistant superintendent of the Southern Division of the Narragansett Electric Co., and at present is living at 160 Broad St., Providence, R. I. His home address is 124 Ardsley Ave., Glenside, Pa.

E. J. Dailey is the manager of the Lighting Department of the Graybar

Electric Co. of New York, and is living at 1079 Hunter Ave., Pelham Manor, New York.

Floyd Skidgell is living at 170-12 118th Ave., Jamaica, New York.

George E. Carver is with the Kana-wha Mfg. Co., in Charleston, W. Va.

Carl Bechhoefer is with the War Department, chief of party on the Illinois River Dredging and can be reached at the U. S. Engr. Area office at Peoria, Ill. He lives at Beardstown, Ill.

Charlie Heilman is president of the Commonwealth Industries in Detroit and lives at 311 Montana West, Detroit, Mich.

R. E. Wiley is general manager of the Explosives Department of the American Cyanamid & Chemical Corp. in New York. He lives at 36 Sanford Ave., Plainfield, N. J.

Herb Kynor, whom I had the pleasure to see at various times at football games during the fall, is vice president of the Cox Brothers, Inc., Hazleton, Pa., and lives at 630 Jefferson Ave., Scranton, Pa.

Ed Ehmman is division manager of the Philadelphia Electric Co., Ardmore, Pa., and lives at 211 Strathmore Rd., Brookline, Upper Darby, Pa.

I saw Johnny Rowan in Baltimore last week just before he left with Mrs. Rowan for a combined business and pleasure trip to Texas. Johnny was so unfortunate as to have a bad fire in his plant this summer. He was able to stall off his customers until he was in shape to ship again and he tells me that he managed to make his shipments approximately on schedule, although it was almost by super-human effort on the part of his organization.

Saw Jim Pierce several times during the fall at football games and he tells me that business is still moving along well with him.

I will be glad to receive news and comments from any of you indicating what you are doing and where you may be reached if there is any recent change in your address.

Class of 1913

E. F. Weaver, Correspondent
1601 Union Blvd., Allentown, Pa.

My last appeal begging for the return of the questionnaires had at least one result in that Dan Levan, president and general manager of the Lowell Gas Light Co., at Lowell, Mass., returned his together with the information that, although he did not get back to Bethlehem for a number of years, he will do his utmost to attend the next Lehigh-Lafayette game and our 25-year Reunion in 1938. We're glad to hear from you, Dan, and we'll be looking for you.

Some friend of Art Ward's who lives in Buenos Aires, Argentina, wrote him telling him he met C. R. Wylie, who is the No. 1 man in the new combination of the Vacuum Oil Co., and the Texas Oil Co., in Argentina. This friend of Art's further states Doc is doing an excellent job down there. More power to him. But I do wish he, and some of the

rest of you guys, would return your questionnaires. Doc's address is Ultramar S. A. P. A., Chile 778, Buenos Aires, Argentina.

Jim Sheppard, who is Investment Counsel with headquarters in the Michigan Trust Bldg., Grand Rapids, Mich., has changed his residence from Oakwood Manor to 2809 Woodcliff Ave., S. E., Grand Rapids, Mich., according to information received at the Alumni Office during January.

We have received word from the Alumni office that Robert Campbell is associated with the Atlas Steel Barrel Corp., 27 Hudson Blvd., Bayonne, N. J., as salesman.

In case some of you have lost track of him, E. E. Finn is assistant to the president of Anthracite Industries, Inc., with headquarters in the Chrysler Bldg., New York City.

We finally heard from S. Lee Bear, whose questionnaire was returned to us because we did not have his latest address (we will send it to him again now that we know he is an active partner of S. Lee Bear & Co., Investment Securities, at 297 Union Trust Bldg., Pittsburgh.)

Paul B. Reinhold is one of the busiest men in our class, being president of Atlas Equipment Corp., and president of Reinhold & Co., Inc., both of Pittsburgh, and first vice president of American Road Bldg. Ass'n, Washington, D. C.

The questionnaire sent to R. J. Fahl at 312 August Ave., Richmond, Va., was returned because of "Unknown at this address." The Alumni Office suggested that we try the Standard Oil Co. of N. J. at Richmond, Va. If we hear from him, we will advise his whereabouts in the next BULLETIN.

Guess who dropped in to see me at the office a couple of weeks ago; none other than W. C. Rehfuss, who is sales engineer in Maryland, Eastern Pennsylvania, Southern New Jersey and Delaware for Schlutte & Koerting Company of Philadelphia. We had a nice chat and, although I'm not overly fond of peddlers, I was glad he dropped in.

May I expect the return of some more questionnaires following this appeal? I need them if I am to continue contributing this column indefinitely (or am I to infer from non-receipt of them that I am not to continue this column? Well, name your man, fellows, and I'll retire the fastest you ever saw anyone work.)

P. S.—As so many of you wanted a list showing addresses of the men of '13, I am sending this list to you within the next few days.

Class of 1915

*E. C. Higgins, Correspondent
Sulphur Springs, Arkansas*

Your columnist has not been back to Arkansas since the last BULLETIN was published, and since that time the hill-billy postoffice at Sulphur Springs has inadvertently and without instructions returned letters addressed to me there. Hence there may be some news from



Makes
winter driving
— a winter sport...



**A GREAT OIL
TO GO WITH IT!**

1,000,000 running motors—a *million* of them—were tested on the Cities Service Power Prover to perfect KOALMOTOR Gasolene. The Power Prover showed exactly what a gasolene should do. And KOALMOTOR does it!

KOALMOTOR starts your engine the moment you put your foot on the starter. It warms up quickly... takes it easy on the choke... gives you smooth, powerful performance... even when Old Man Winter is at his worst. Yet KOALMOTOR costs you no more than ordinary gasolenes. It gives you a longer run for your money.

Try a tankful today. Make winter driving your favorite winter sport.

KOALMOTOR
The sure-fire winter gasolene

some of you fellows and if such was the case the same never reached me. With this in mind, this is being written in Bethlehem and substantially duplicating the type of news given last month.

Can tell you that Shorty Geyer is sailing from England on the 28th for an extended American vacation. Call him at Ingersoll-Rand, 11 Broadway, after February 1st, and have him take you to lunch. "Pinky" Cranmer, assistant manager, Lubricating Dept., West India Oil Co., Av. Roque Saenz Pena 567, Buenos Aires, Argentina, is in the States. He can be reached until March 31st, c/o Mrs. Ed. Inman, Manahawkin, Ocean County, N. J.

Kelchmer, Humphrey and your colymist had a very pleasant luncheon and early afternoon on Dec. 31st at McGilly's in Philadelphia, sort of priming for New Year's Eve. While there called Roy Frey, special agent for Travelers Insurance Co. He happened to be in Bethlehem and was just calling in when I telephoned. Said he would play ball along with the rest of us on proposed plans. Wickersham and Berg and families entertained at dinner at Nixon's and a trip to the Follies while in Pittsburgh. The usual New York contingent has been seen from time to time. One resurrection there,

Myron Weaver, contacted through Eshbach, will help us in any manner.

Keep in mind homecoming day for the Lehigh-Lafayette game on November 20th. Your committee is planning a lot of interesting events for another assemblage, one feature is a block of 40 seats now on reservation for us for the big game. This should be a gala occasion, because from my research into statistics, Lehigh has never defeated Lafayette four straight—it is believed that this is going to take place in 1937.

The Alumni Office has asked me to again remind you of the forthcoming publication of the directory, containing addresses, occupations, etc. of Alumni. To get this directory gratis, Alumni dues must be paid. Send your check to Cornelius.

Class of 1916

E. J. Clement, Correspondent
10 Sheridan Square, New York City

1916 STANDARD DICTIONARY New Lehigh Directory Edition

Clare, klar, Edwin A. (1895-)
1. President, Athol Manufacturing Co., Athol, Mass. 2. Res.: 420 Pleasant St., Athol, Mass.

Gar'ges, gar'jus, Eugene W. (1893-)
1. Structural Designer, Max B. Miller, Inc., Consulting Engineers, 501 Fifth Ave., New York City. 2. Res.: 162 Carteret St., Glen Ridge, N. J.

Light, lit, A. B. (189?-)
1. Medical Director, Lawrenceville School, Lawrenceville, N. J. 2. Res.: Green Cottage, Lawrenceville, N. J. 3. M. D.—Univ. of Pa. Med. School, '18.

May'ers, may'yers, Henry H. (1893-)
1. Superintendent, Chas. Lennig & Co., Inc., Bridesburg, Philadelphia Pa. 2. Res.: 161 Greenwood Ave., Wyncote, Pa.

Reit'zel, right'zell, J. H. (189?-)
1. Sales Engineer, American Oil & Supply Co., 238 Wilson Ave., Newark, N. J. 2. Res.: 409 Wilden Place, S. Orange, N. J.

Williams, will'yums, Earle C. (1892-)
1. Telephone Engineer, A. T. & T. Co., 195 Broadway, New York City. 2. Res.: 1413 Fifth Ave., Sea Girt, N. J.

Class of 1917

C. W. Kingsley, Correspondent
40 E. 88th St., New York City

On Wednesday, January 13, I attended for the first time in many moons a meeting of the Lehigh Club of New York. There were only two contemporaries among those present: Carlson ('16 correspondent kindly note) and Bunny McCann. The latter was his usual lugubrious self; I guess he is afraid we won't have a war and the price of lead won't continue going up.

So far I have heard nothing from any of the members of the class anent our reunion, and, in fact, have heard nothing from any of the men who were drafted into the nucleus of a committee. Here's hoping something happens within the next two or three months.

Class of 1919

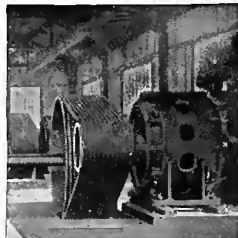
Roy R. Coffin, Correspondent
16th and Locust St., Philadelphia

As you may or may not know, the Class of 1919 have been using the Rotating Secretary plan and "Yours Truly" drew the job for the February issue.

The only material received was a few changes of addresses. Unfortunately these were received at a rather late date, and I have heard only from two of these men, so that the information regarding various members of our class will be rather sparse.

It would seem to me that the Class of 1919 is in rather an unfortunate position, in that there were approximately 800 freshmen entered in the Fall of 1915; and but 17 or 18 members in the graduating class. This was definitely not due to the lack of brains on the part of individual members, but due to the recent unpleasantness known as the World War.

So much for the Cause—which we have used as an excuse for our lack of co-ordination for the last 18 years. The result has been that our class has drifted far apart, and it is high time that we made a special effort to gather in the



T. B. Wood's Sons Co.

Chambersburg, Pa.

V-BELT DRIVES - FLAT BELT DRIVES
Flexible Couplings . . . Clutches
Pulleys . . . Rigid Couplings . . . Bearings

CHAS. O. WOOD, '92 T. B. WOOD, '98 G. H. WOOD, '99

CHARLES McGONIGLE, '01

OTH O POOLE

POOLE & McGONIGLE

Engineers and Manufacturers

STRUCTURAL STEEL FOR BRIDGES, BUILDINGS, Etc.

PORTLAND - - - OREGON

POOLE - DEAN COMPANY

Incorporated 1911

Steel Contractors

ERECTORS OF BRIDGES and BUILDINGS

PORTLAND - - - OREGON

OTH O POOLE

CHARLES McGONIGLE, '01

lost members and try to reorganize a unit that would definitely be of some value to Lehigh University.

I am asking the members of the class, and also nearby classes, to furnish any information pertaining to various members of 1919, and to make a special effort to forward this information to the Alumni Secretary at Bethlehem, who would see that it was placed in the hands of the next month's correspondent, whose name and address you will note below.

There are a great many of us who feel that we are too busy in our own little rut to be of any assistance, and my immediate reaction was to write Joe Rosenmiller and say that I would not have time to write the letter for February. There's an old saying, "if you want anything done in the line of Committee Work, you should go to the busiest man you know and he will find time to take care of it." You can bet your bottom dollar that any correspondence received in the future, and any help given in the reorganizing of 1919 will come from the busy members, or from those one might term, **THE LIVE WIRES.**

To date practically the whole work has fallen on the shoulders of Bucky Macdonald, Joe Rosenmiller, and Joe Gardiner. It is high time we gave them a little help. So "stir your stumps."

Buckie Macdonald says that he will soon be mailing a letter to all members of

the class, regarding the award we will make in June. This is a very good way for the class to get in the "limelight" and also do her bit for 1919, so Buckie would appreciate your cooperation in the matter. Be on the lookout for his letter, and let's put this thing over in a big way.

I understand that Charlie Schubert is the manager of the Buchanan Williamson Supply Co. in Grundy, Buchanan Co., Va. Address, Grundy, Va.

R. Davis Halliwell, is vice president of Bliss Fabry & Co., Inc., 32 Thomas St., New York City. Residence: 955 Lexington Ave., New York City.

Ginarn Lao, is the managing director of the Lakeview Hotel, Hangchow, China.

I received a very nice letter from Bill Shirk, who is now associated with the Industrial Lubricating Sales Division of Gulf Oil Corp., and is located in the Gulf Bldg., Pittsburgh, Pa. He advised me that he has two boys, one eighteen and one sixteen. The older one is a freshman at Pennsylvania State College, studying technical agriculture.

He further advised me that Ricklef A. Reid is associated with the Montana Power Co. at Great Falls, Mont. He's married and has one boy about twelve years old.

J. B. Heilman is associated with the Republic Steel Corp. at Massillon, Ohio; has two children—one boy and one girl.

I also received a very nice letter from

Ed Hartney, who is living in Greenwich, Conn., 16 East Putnam Ave. He has been pastor of the First Methodist Episcopal Church at Greenwich since 1934, and for six years prior to that was pastor of the Methodist Episcopal Church in Derby, Conn. He married a Miss Marion C. Heath of Morristown, N. J., in May of 1930. He understands that Harold Walters is in New Orleans, and associated with one of the Standard Oil Companies; and the last he heard of Engle was that he was sailing on the seas as a wireless operator.

In case anyone is interested, the writer is still watching the stocks go up and down, and located with E. W. Clark & Co., Philadelphia. One bride, two children and a dog.

Shipberd and I will be looking for you at Central Park in June, and I wish to remind you that the corresponding secretary for the March issue will be H. D. W. Smith, 47 E. 88th St., New York City.

Class of 1921

W. M. Hull, Correspondent
The Hall Grindstone Co., Constitution, O.

Old Man River is knockin' at my door. First it was the wolf and now it is Old Man River—'his-self.' From my front porch I can pitch pebbles into the Ohio which is ordinarily more than a city block away. Across the river in West Virginia I can see the water creeping up

Sources of Service ...

Two Sources of Service have greatly increased the efficiency and economic output of the leading coal mines throughout the country.

One Source of Service is Lehigh University. A list of notable mine executives, engineers, managers and presidents of industrial companies in the vicinity of the mining fields, reads like a roster of Lehigh graduates. Out of the 51,000,000 tons of anthracite mined in the United States in a year, 20,000,000 tons were mined by companies headed by Lehigh men. That is one of the Sources of Service.

The other Source is American Car and Foundry Company. Q.C.F. plants at Berwick, Pa.; Huntington, W. Va.; Bloomsburg, Pa.; and Terre Haute, Ind.,—each in the heart of a mining region—have supplied mine cars providing the most economical transportation. For eighty-seven years, Q.C.F. has been studying the industry's requirements and has been constantly developing new and more modern equipment to meet those needs. Take advantage of our cordial invitation to visit the nearest Q.C.F. plant.



AMERICAN CAR AND FOUNDRY COMPANY

New York • St. Louis • Chicago • Pittsburgh • Cleveland • Berwick, Pa. • Philadelphia, Pa.
Huntington, W. Va. • Terre Haute, Ind.

on the Parkersburg Country Club golf course, and Parkersburg a few miles to the south at the mouth of the Little Kanawha River. Almost in view, up the river, is Marietta at the mouth of the Muskingum River.

Yesterday the prediction was for a 40 foot stage, today the government prediction is for a 45 foot crest and other predictions are for 50 feet. It continues to rain and the river is rising—and we are wondering whether or not the flood will reach major proportions. Today is the day I must mail this copy and I hope to start it on its way by boat some way since the trains past here have been discontinued and the state highway in front of my house, and as far as I can see, is under several feet of water. Being stranded here is a new experience for me and is due to the original prediction of 40 feet. We face the possibility of no heat for days but no possibility of the water reaching us unless I follow my present intention to leave soon for Parkersburg with family via bathtub.

The radio has just announced that Cincinnati—200 miles down the river—is having the greatest flood in history and that at Portsmouth, Ohio, the flood gates have been opened in the flood wall and that the city of 45,000 is being flooded. Thousands of families are homeless. The 48 foot stage of last March surrounded our office building in Marietta. At that time all of the stores along the main street had water in them almost to the ceilings and guests of the Lafayette—Marietta's principal hotel—rowed by boat over the five entrance steps into the lobby and up to the desk to register.

Imagine the condition in 1907 and 1913 when the stage reached nearly 60 feet—nearly 15 feet higher than the predicted crest of 45 feet for Sunday, January 24th—day after tomorrow. In 1907, I recall, a three story house passed with its family on the roof and that year and

in 1913 many Marietta families moved out of their second story windows as the rising river reached their second floor. And in Parkersburg—which I call home—the post-office, city building, court house and most of the business houses stood in several feet of water, but little of the residential section was inundated. Such floods do not come often and we here in the Ohio Valley hope and pray that one is not now on the way.

But when you drive by to see me late next August, you will find a truly "Beautiful Ohio" with half a hundred out-board motor boats here racing at 50 miles an hour in the Mid-East Regatta, or if your visit is in June we will board the train to follow the crew races with perhaps Washington, Rutgers, Pennsylvania and Marietta College competing.

The following men will kindly supply an item of interest for "our" column. (Please note addresses and connections.)

H. O. Wright, inspection engineer, Bell Telephone Laboratories, 436 West St., New York City. Residence and mail: 234 Walnut St., Westfield, N. J.

R. P. Linderman, Jr., J. H. Brooks & Co., (Members N. Y. Stock Exchange) Easton, Pa.

E. L. Tinker, Bell Telephone Co. of Pa., Elm and Cherry Sts., Norristown, Pa.

G. L. Childs, National City Bank of New York, Canal St. and Broadway, New York City. Residence: 64 Summit Ave., Bronxville, N. Y.

W. M. Long, secretary and treasurer, The Southampton Nurseries, Southampton, Pa. Residence: 309 Waring Rd., Elkins Park, Pa.

John Bauman, clerical work, (W.P.A.) in office of Recorder of Deeds, City Hall, St. Louis, Mo. Residence: 10 N. 10th St., St. Louis, Mo.

H. W. Riebe, superintendent for Charles Riebe, (general contractor) Lansford, Pa. Temporary residence: Laury's Station, Pa.

E. B. Hys, secretary and chief en-

gineer, Arenco Machine Co., Inc., 25 W. 43rd St., New York City. Residence: 35 Park Ave., Maplewood, N. J.

John M. Norr, Jr., testing and laboratory work, Diehl Mfg. Co., Elizabeth, N. J. Home: 312 Parker Rd., Elizabeth, N. J.

Class of 1922

C. C. Strauch, Correspondent
2805 Haverford Rd., Ardmore, Pa.

Now that Christmas is all over and everybody has sobered up after the New Year's Eve party, we will try to give you a little news . . .

Had a nice letter from Clint Ide in Wilkes-Barre, who tells us that he is still operating the Power Engineering Corp., in the Coal Exchange Bldg. in Wilkes-Barre, selling air conditioning, heating, ventilating and power machinery. Clint didn't say so, but I understand the air conditioning is Carrier. Such being the case, any well wishes from a good York Ice Machinery man for the success of a Carrier air conditioning operation would be distinctly out of place. Buy "York," Clint.

News from Harold Major indicates he is Appropriation Engineer at the mines of the Buckeye Coal Co., at Nemacolin, Pa. We understand he has two daughters who are about the right age to watch Clint Ide's son perform on the Lehigh football field.

Heard about Al Gross from my boss when he recently employed an attorney in Easton, Pa., when it developed said attorney was "our own Al." With all the roughnecks and crooks that there must be in Easton, we would expect that Al's business would be pretty good. After all, it takes a good Lehigh man to get Lafayette out of trouble. Al advises he was married on April 4, 1936—congratulations, young fellow—and why not write us a note and tell us all about yourself?

Ken Downes is Claim Supervisor for the Insurance Co. of North America in

THE HOTEL BETHLEHEM

200 ROOMS
200 BATHS

Alumni Headquarters of the Valley

- MAIN DINING ROOM
- COFFEE SHOP
- TAP ROOM
- CRYSTAL BALL ROOM

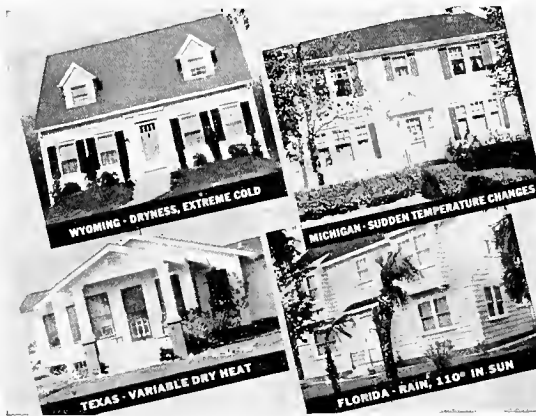
Unlimited Free Parking

Under Direction of American Hotels Corporation

J. LESLIE KINCAID, President
STUART E. HOCKENBURY, Manager



Tests in 30 States Prove Durability of New House Paint



From Texas to New England — from Minnesota to Florida, the greatest paint test ever conducted proves the new Devoe 2-Coat System doubles the ordinary life of exterior house paint.

For Descriptive Booklet — Write Any of Us

G. L. Ball, Jr., '30	S. R. Goodrich, '35	C. F. Miller, '35
E. W. Diener, '28	C. M. Jackson, '33	B. Rabin, '32
K. A. Earhart, '31	J. S. Long, '13	A. E. Rheineck, '31
T. K. Garihan, '36		G. A. Voehl, '36

DEVOE & RAYNOLDS CO., Inc.

1 West 47th Street, New York

Alexandria, Va. Bill Little was after his address—so here you are, Bill—120 W. Glendale Ave., Alexandria, Va.

Abe Thaeler is still building ships, and this time he is scientific engineer for the Federal Ship Building and Dry Dock Co., at 25 Broadway, New York. Don't forget to sail down to Lehigh for the "Fifteenth" in June.

That's enough for this time—why not let us hear from some of you fellows once in a while?

Class of 1926

*John W. Marwell, Correspondent
Lehigh University, Bethlehem, Pa.*

LEHIGH ALUMNI BULLETIN
Published by Alumni Association of Lehigh University, Inc.
Alumni Memorial Building
Bethlehem, Pa.

Wm. A. Cornelius
Robert F. Herrick

December 11, 1936.

Mr. John W. Maxwell
Lehigh University
Dear Mr. Maxwell:

The attached change of address slip* is all the 1926 dope that has come in to the office during the last month. Maybe you can elaborate on it enough to fill up your column in the January issue.

Copy is due on December 21.
Merry Christmas.

Sincerely,

MILDRED RADMAN.

*Here is said change of address slip:

Gleni. Graef W.

New Res. Engineers' Club

1317 Spruce St.

Philadelphia, Pa.

Old: Elkins Park, Pa.

All this merely constitutes one way of telling you why we don't have bigger and better '26 columns in the BULLETIN. Never having pretended to be a writer of fiction, but merely a lowbrow reporter, no news means no column, hence its absence in the January issue.

However, unknown to you, '26 did play an important part in the January issue. No, there wasn't much news about '26 men anywhere else in the issue but the cover was the product of yours truly when he was a more important cog in the production of this magazine.

This month we can do a little better as far as news is concerned, or rather other members of the class came to our rescue and furnished some dope for our column. Even then your procrastinating correspondent almost missed the deadline for copy.

First of all, here's a letter from Bill Laramy who is principal of the Oakmont School near Philadelphia.

Dear Johnny:

It may be an item of interest that at the annual convention of the Pennsylvania State Education Association I was elected president of the Department of Elementary Principals of the Pennsylvania State Education Association for 1937. I am sure at least that I am the only holder of an E. M. degree that has filled this position.

It is a bit late to report on the matter but you may be interested to know that on the Saturday Lehigh was defeating Lafayette in football last fall the brown and white of Oakmont school was victorious over the maroon and white of Manoa School in the annual battle between these two grade school teams. This year a crowd of 1,000 attended the game on the Haverford High School field. The final score was 32-13. It was the finish of a successful season during which we defeated all the other grade schools of Haverford Township and one from Lower Merion.

With best wishes,

BILL LARAMY.

KENT

Electric
Floor
Machines

Fast
Suction
Cleaners

Solve the Problem of Removing Dry Grease Accumulations from Floors.

Solve many dust problems in all types of factories and plants.

Bert M. Kent, '04
Vice President

THE KENT COMPANY, Inc.

167 Canal Street, Rome, N. Y.

Gordon E. Kent, '07
President

MORRIS BLACK

Wholesale Retail
BUILDERS' SUPPLIES and MACHINERY

Paints and Industrial Coatings

215 Vineyard Street
Bethlehem, Penna.
Phone — 2746

Third and Union Streets
Allentown, Penna.
Phone — 7201

Then we learned that Millard Stofflet's *Hamburg Item* captured first prize in its division in the annual contest conducted by the Pennsylvania Newspaper Publishers' Association. His paper also won second prizes in the first page and editorial page competitions. An orchid to you, Millard.

Then comes news from the flood front from Jimmy LeVan who is probably up to his ears in work as well as in water as this is being written, and undoubtedly will be going night and day for weeks to come. He is now stationed at Chilli-cothe, near Cincinnati, and is in charge of the Scioto River investigation there.

Bob Winchester has what looks like a new job to us. He's a freight representative for the Pennsy Railroad in Baltimore so you Baltimore barons keep his line in mind when consigning your car-load lots of freight.

Don Mong is out in the corn belt at Newton, Iowa. As usual Don's modesty keeps us from giving you any more details.

It's stuff like Bill Laramy and Stofflet sent in that makes a column like this worthwhile. Surely these aren't the only fellows in the class who break into the headlines now and then. Nobody's more interested in your progress than the fellows who spent four years with you on South Mountain. One of these days we're going to take a tip from one of the other correspondents and write

to the wives; then we'll get the real low-down on you.

Class of 1927

H. O. Nutting, Jr., Correspondent
14 E. Walnut St., Lebanon, Pa.

It is gratifying to at last know something definite about Bob Richards; the column has heard of him in Pittsburgh, Cleveland and Upper Michigan recently. Now we may rest, for Bob is pinned down with the Kelly-Springfield Tire Co. in Newark, N. J. His residence is 376 William St., East Orange. Bob, will you do a favor for the class? Look up Fatty Goid, last known address 210 Prospect Park, West, Brooklyn. The Alumni Office requests removal from list because of "no address." Please try to locate him.

A. A. Fraser, Jr., received an M. B. A. degree from N. Y. U in 1931. At present he's custodian of accounts and trust investments with the U. S. Trust Co. of New York on Wall St.

For all who remember the dizzy freshman (voted so by 1926) who ran around the campus in the knock-down Ford, and was always monkeying with radios here's news: R. W. Delmotte is city radio engineer for the Harrisburg Police Department. He lives at 1613 Herr St., Harrisburg.

Jack Hague is with the Commercial Department of the New York Telephone Co., living at present in Ridgewood, N.J.

The following changes of address were noted: J. S. Askin, 49 E. 96th St., New York City; F. E. Jedlicka, 720 N. 26th St., Allentown; A. E. Keller, 924 W. Grace St., Richmond, Va.; J. H. Metz, 7920 Westview Ave., Highland Park, Upper Darby; and C. K. Reinsmith, 717 Chestnut St., Emaus, Pa.

The next issue of the BULLETIN will show an interesting column written by George Rupp. He's been kind enough to accept the job; also he's got lots of news that never gets to your correspondent.

With under 50 classmates receiving the BULLETIN, some measures will have to be made for spreading the gospel of our tenth reunion at an early date.

Class of 1930

F. J. Whitney, Correspondent
322 N. Matlack St., West Chester, Pa.

Probably the most outstanding piece of news for the month is that George Feakins and his wife were the winners of the \$25,000 Old Gold Contest. Mrs. Feakins won the prize, but we are sure George did his share of brain scratching. We hope that George will put enough aside to attend the tenth reunion.

Lee Harris, Jr., is living at 16 E. Ben-ezet St. in Philadelphia.

D. D. Morton is supervisor of the Tom-kinsville Pool Park Department of Staten Island, New York City. His residence is at the Pool.

H. W. Castles has received his M. A. from the school of experience in 1935.

**We solicit your business
no matter how small
or how large it
may be**

Complete Lines of
**Paper Bags, Wrapping Twine, Napkins
Towels, Toilet Tissue, etc.**

Office Supplies, School Supplies
Filing Equipment, Typewriters
Rubber Stamps, Printing, Engraving
Lithographing, Textbooks, Drafting Supplies

Representing Corry-Jamestown in Steel Equipment

Standard Stationery Supply

333 South New Street

Bethlehem, Pa.

PHONE 2714

H. A. (Mickey) SEWARD, '30
Proprietor

R. B. MILLER
Beta Theta Pi House
Campus Representative

CANDOHM RESISTORS WILL SAVE YOU MONEY

Candohms

**ARMoured
WIRE WOUND
RESISTORS**



**OVER ELEVEN
MILLION IN
USE**

**MAY WE SAMPLE
AND QUOTE?**

MUTER

THE MUTER COMPANY
1255 SO. MICHIGAN AVENUE
CHICAGO

SEND YOUR SPECIFICATIONS FOR SAMPLES AND PRICES

After all, some of our classmates have probably been able to pick up a few doctorate degrees since 1930 from the same school. "Cac" is still co-partner and manager of the Klugh Lumber Co. at Dillsburg, Pa.

Ed Blackmar has left Sears-Roebuck and he is now associated with Halme & Co. of Newark, N. J. He is assistant buyer of household goods for them. His mailing address is 268 S. Centre St., Orange, N. J.

When passing through Seymour, Conn., be sure to stop at the Dutch Door Inn, where the finest of food will be served to you. The reason is that "Clay" Boies is the proprietor of the inn.

Robert Serber is now in the law offices of David Serber, 21st floor of the Market Street National Bank Bldg., in Philadelphia.

Last month we made a note of the fact that Connie McLaughlin was in the packing department of Strawbridge and Clothier department store in Philadelphia. We find out that he is assistant head of the department. His home address is 715 Rawn St., Philadelphia.

Bill Wynkoop is first electrician in the coal colliery of the Penn Anthracite Co. at Scranton, Pa. His mail address is 1622 Capouse Ave., Scranton, Pa.

G. F. Motter is now working as a designer of printing machinery in York, Pa., the company is the George F. Motter Sons.

Bill Foley is still checking up on the

broadcast bands for Uncle Sam. His home address is 1811 Pope Ave., Norfolk, Va.

L. A. Lubow is assistant city chemist for the City of Durham, N. C.

Frank Potter is in the commercial department of the New York Telephone Co.

Harvey Dunn is in the credit and collection department of the Atlantic Refining Co. in Philadelphia. He is living at the Lincoln Court Apartments in the same city.

Albert C. Johnson is a lecturer in hygiene and assistant medical adviser at Cornell University.

Dr. Stephen Coates is a physician at Suffield, Conn. His address is 286 Main Street.

Bob Anderson has gone in business for himself. He is president of Ryco, Inc., manufacturers of textile oils and soaps, at Conshohocken, Pa. His home address is 604 E. Moreland Ave., Chestnut Hill, Pa.

A. R. Secor is cashier for Mary Elizabeth, Ltd., at 392 Fifth Ave., New York City. He lives at Scarborough, N. Y.

As this bit of news is being written the Ohio River is on a rampage, already having made thousands homeless. It would be most interesting if any member of the class who has been an eye-witness would write to me about it in order that we may have something additional for the next issue of the BULLETIN.

Class of 1931

A. W. Thornton, Correspondent
644 Petty St., McKeesport, Pa.

Mort Lamb is still in the anthracite coal business, as foreman for Penn Anthracite Collieries Co. at Scranton. He is living at 237½ Colfax Ave. in Scranton.

Louis Bloom is working for the New Jersey Bell Telephone Co. as commercial engineer. His business address is 214 E. State St., Trenton, N. J., and his home address is 81 N. Delmorr Ave., Morrisville, Pa.

Francis Newirth is working in the advertising division of Wallach's, New York City. Ralph Beckel is now living at 13 E. Rock Rd., Summit Lawn, Allentown.

Carl Krott is inspector of construction of the Sanitary Sewage Disposal System, Borough of Mount Penn, Reading. He is living at 232 Cedar St., Reading, Pa.

F. J. Maier is sanitary engineer, U. S. Public Health Service, Sub-Treasury Bldg., New York City. His residence is 345 W. 87th St., New York City.

Jay Boltz is in the actuarial department of the Expressmen's Mutual Life Insurance Co., 212 43rd St., New York City. He is living at 117 Irving Place, Rutherford, N. J.

George Shoemaker is piloting for the American Air Lines from Newark Air

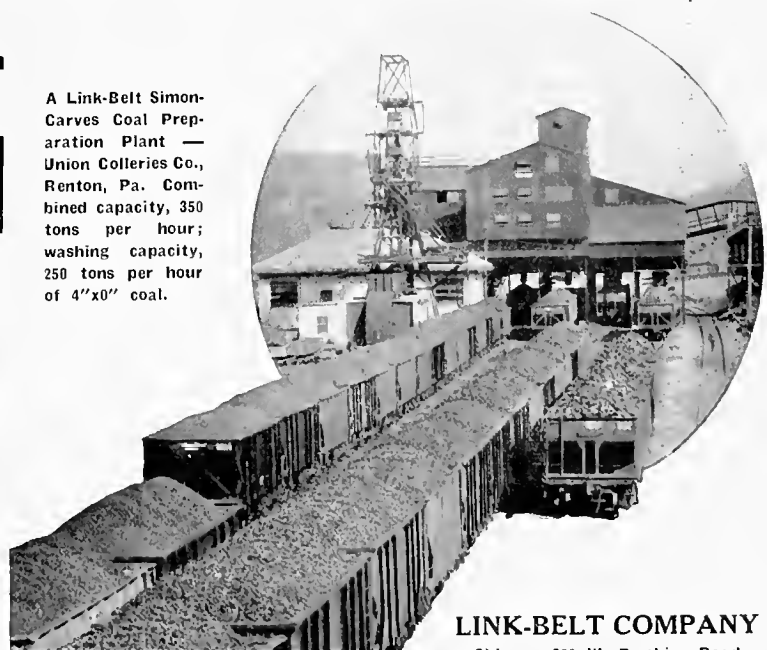
LINK-BELT

**BRINGS LOW COST TO EVERY
STEP IN COAL PRODUCTION**

**STRIPPING
DUMPING
CONVEYING
DEDUSTING
CRUSHING SIZING
PICKING
CLEANING
DRYING
BLENDING
LOADING**

Preparation Equipment

A Link-Belt Simon-Carves Coal Preparation Plant — Union Collieries Co., Renton, Pa. Combined capacity, 350 tons per hour; washing capacity, 250 tons per hour of 4"x0" coal.



LINK-BELT COMPANY

Chicago, 300 W. Pershing Road
Philadelphia Pittsburgh
Huntington, W. Va.
Cleveland Wilkes-Barre

EDWARD J. BURNELL, '12
C. A. WOERWAG, '10
HAROLD S. PIERCE, '04
THOMAS A. LINTON, '34

Port. His address is 1976 William St., Union, N. J.

Frank Rushong has a new home address: 253 N. 24th St., Camp Hill, Pa. Al Baur has moved to 95 Christopher St., New York City. Charles Burt is now living at 501 Beacon St., Boston, Mass.

Vincent Berger is safety engineer for the U. S. Fidelity & Guaranty Co. (of Baltimore, Md.) 826 Lafayette Bldg., Detroit. Elias Sindel received his M. D. from N. Y. U. and Bellevue Hospital and College in 1935. He is located at 2978 Ave. T, Brooklyn.

H. Collidge H. Davidson, Jr., is working in the statistical department, New York Steam Corp., 130 E. 15th St., New York City. His residence is 4 Rydal Place, Montclair, N. J.

Frank Freese is director of research of the Cuneo Eastern Press, Inc., Erie Ave., Philadelphia. He is living at 5751 N. Mascher St., Philadelphia.

Class of 1932

Lt. Carl F. Schier, Jr., Correspondent
2308 Bryan Park Ave., Richmond, Va.

The returns on the information forms I sent out the first of the year to all members of the class have been very gratifying. At this writing one-third of the class has responded and more forms arrive with each mail. The most pleasing aspect is that so many '32-ers have indicated that they will be on hand for our big Fifth Year Reunion. However, many of the gang who should have re-

sponded have undoubtedly forgotten the form and I hope that in reading this they will be reminded of it and send it in without delay.

Chuck Nassau is with the Production Department of Southeastern Cottons, Inc., of New York City and Ned Brumbach, from whom we haven't heard in many a moon, is associated with the Carpenter Steel Co., of Reading, Pa., in their metallurgy department. Frank Fisher is continuing to do a swell job for the Atlantic Refining Co., as a geologist in Wichita, Kan.

Stan Simon is an inspector for the Delaware Liquor Commission, Wilmington, Del. Lawson Miller, one of our many Newburgh, New Yorkers, is with the Newburgh firm of wholesale grocers, Hilton, Gibson & Miller. Bill Altman is now recognized as Dr. Altman; having received his D. D. S., from Washington University of St. Louis, Mo., in 1936. Bill has established his own dentistry practice at 1356 Boston Ave., Bridgeport, Conn.

Two of our West Coasters, Henry Persons, and Matthew Thomlinson always manage to keep me well posted on their activities. Henry is still with the Mutual Life of N. Y. in Covina, Cal., and Mat informed me that whenever the strikers permit he manages to perform his clerical duties with the Grace Steamship Line in San Francisco.

Ross Sweeny a field technician for

District B, Region I of the National Park Service is located in Salem, Mass. Chick Casselman obtained his law degree in 1935 from the University of Newark, N. J. law firm of Child, Riker, Marsh & Shipman.

Just before Christmas I received an interesting letter from Jack Boughner who is still practicing law with Oppenheimer, Dickson, Hodgson, Brown & Donnelly of St. Paul, Minn. Jack finished law school at the University of Minnesota and received his LL.B. in 1935 in addition to captaining and coaching the Minnesota fencing team in 1934 and 1935 and garnering the state fencing championship in 1933. While in school he was president of the law school council and being politically minded, is now secretary of the Ramsey County League of the Young Republicans.

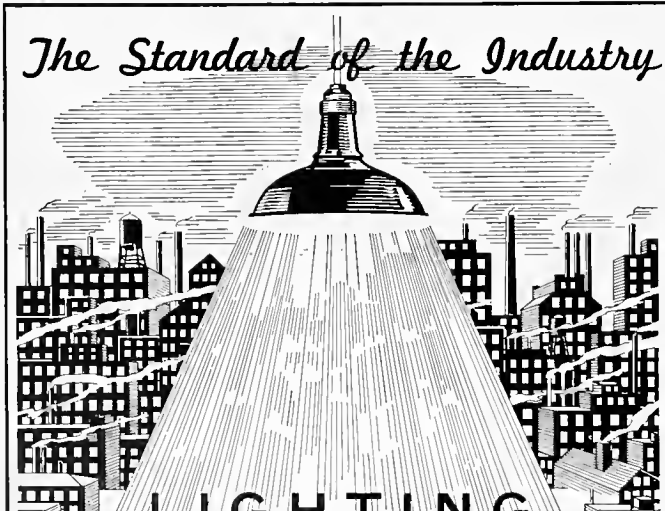
Graeme MacDonald is with R. H. Macy & Co., in New York City. John Roeder can be found at the Government Bond Trading desk at the New York City Federal Reserve Bank.

Class of 1933

Burt Riviere, Correspondent
902 Chamber of Commerce Bldg.,
Pittsburgh, Pa.

As we go into the second month of this year, I am sadly reminded of the fact that your correspondent missed the January issue with news. Possibly I owe all the '33-ers an apology, but, by George, it is tough to be here and not have any

The Standard of the Industry



LIGHTING
REFLECTORS AND FLOODLIGHTS
for every industrial requirement

BENZAMIN
TRADE MARK
ELECTRIC MFG. CO., DES PLAINES, ILL.
B. G. KODJANOFF, '98

FORT PITT BRIDGE WORKS

Bridges . . . Buildings

Structural Steel Construction of All Types
Reinforcing Steel—Welded Bar Mats, Etc.

Plants:

CANONSBURG, PA., and MASSILLON, OHIO

CAPACITY, 100,000 TONS PER ANNUM

GENERAL OFFICE: 20th Floor, H. W. Oliver Building
Pittsburgh, Pa.

NEW YORK OFFICE
15 Park Row

CLEVELAND OFFICE
Bulkley Building

PURCHASING DEPT.
Cannonburg, Pa.

T. A. STRAUB, '90, President

H. R. BLICKLE, '93, Vice-President

SCHUYLER B. KNOX, '93, Mgr., N. Y. Office

P. B. STRAUB, '97, Secy. and Treas.

A. SHELDON, '93, Asst. Chief Engr.

N. G. SMITH, '06, Engr. Contr. Dept.

D. B. STRAUB, '28, Erection Department

real news. Why don't you all—again I plead—put a penny postcard in the mail right now?

Again Tommy Harleman assumes the role of "Ole' Faithful." Yes, he has crashed through with more news. Here it is, sent from 511 Lincoln Way, East, Canton, Ohio.

As you have probably heard from the Alumni office, I was transferred to the industrial engineering department and the Massillon office of Republic in October. The new work is a lot better than working shift hours and I feel that I can learn an awful lot just as easily where I am now located as trying to be a metallurgist. It sounds reasonable to believe that a business man would make a better industrial engineer than a metallurgist.

Was certainly proud of Lehigh's football team this Fall; and have every reason to believe that the coming wrestling season will find our Alma Mater again crowned Eastern "champs."

It is sure hard to believe that our fifth reunion will be coming around in 1938. Sometimes it seems just like yesterday that all of us were congregating at the Maennerchor and worrying about some exam marks.

Recent news tells us that George Bowden's name is now preceded by "Reverend." The good work, begun at Philadelphia Divinity School, is now carried on in the Warren County (N. J.) Missions.

Charlie Coxe, who began his life's work here in Pittsburgh, has again made a switch—every time for the better, I understand. Charlie had joined forces with the Remington Arms Co. in Bridgeport, Conn., where former Alumni Secretary "Andy" Buchanan, that grand fellow, also holds forth.

From Washington, I have learned that Pierce Flanagan has passed the "Bars" of Maryland and District of Columbia. Seems to me that is a notable achievement in night school along with working for the Government by day.

From reliable sources I understand that Jack Skelly is making his mark in the world. Working as a natural gasoline operator, Jack has headquarters at 324 N. Gillespie St., in Pampa, Texas.

Bill Green has turned to teaching at the Liberty High School in good ole Bethlehem and lives at 741 N. High St.

Howard Godfrey, who received a degree in 1933 after transferring from Tufts College, is helping the J. A. Roebing Sons Co., in these improving times. He will welcome a word at 401 Rutherford Ave., Trenton, N. J.

48 Green Village Road, Madison, N. J. That, fellows, is the most recent address of genial Frank Kolyer. What's the real dope, Frank?

Dal Cooper has become a financier of the first degree. He is a corporate trust administrator at the City Bank Farmers Trust Co. at 22 William St., in New York City.

And along comes the most recent news of smilin' Shorty Zabriskie. He is the assistant superintendent of the In-Tag Company plant in Lodi, N. J.

From all several of us can figure out here in Pittsburgh, we believe that Bill Mills must be very busy and prosperous with all the products he has to handle. By the way, take a good look at his BULLETIN advertisement.

Rudy Sosna of 506 W. Manheim St. in Germantown, Pa., is highly engaged as

Career Men

select occupations which combine present financial rewards with future opportunities. They find that life insurance selling, better than most businesses, offers this combination to men of real ability today.



College Men

selected by The Penn Mutual Life Insurance Company can start life insurance selling on a fixed compensation basis, instead of a commission basis, if they wish. The plan is described in a booklet, "Insurance Careers for College Graduates." Send for a copy.

COLLEGIATE PERSONNEL BUREAU THE PENN MUTUAL LIFE INSURANCE COMPANY

Independence Square • Philadelphia

BETHLEHEM

Bethlehem Foundry and Machine Company serves the Process Industries with a specialized engineering service representing seventy-five years of experience, research and intimate contact with the problems of high temperature processing and by-product recovery... Bring your problems to this company for intelligent, confidential treatment.

BETHLEHEM FOUNDRY & MACHINE CO., BETHLEHEM, PA.

Brown - Borhek Company

BETHLEHEM, PA.

LARGEST AND MOST MODERN LUMBER AND
WOODWORKING PLANT IN THE LEHIGH VALLEY

PHONE 3-700

Duquesne Slag Products Co.

BLAST FURNACE SLAG
CRUSHED, SCREENED AND SIZED FOR ALL PURPOSES

PRESSED SLAG BRICK
FOR ALL BUILDING PURPOSES

BITUMINOUS CONCRETE
PAVING MIXTURE

Plants at

PITTSBURGH, PA.	DUQUESNE, PA.	POTTSTOWN, PA.
COATESVILLE, PA.	CATASAUQUA, PA.	EASTON, PA.
BIRDSBORO, PA.	TOPTON, PA.	

Main Office

Diamond Bank Bldg., Pittsburgh, Pa.

Eastern Sales Office
425 Commercial Trust Bldg., Philadelphia, Pa.

With the Company

C. L. McKENZIE, '93

C. C. BURGESS, '95

J. R. P. PERRY, '26

Ask for Dodson Coal

Regardless of where you may live (provided, of course, you live in anthracite - coal - burning territory) you can always get Dodson coal. It is a high grade product, mined and marketed by Weston Dodson & Co., Inc., Bethlehem, Pa., a hundred per cent. Lehigh University institution, from the President down.

Dodson anthracite coals are as follows:
Oak Hill, Silver Brook, Weston, and Salem Hill. Ask for them at your coal dealer.

secretary to the treasurer of the Henry K. Walpole Co. in Philly. What's the latest dope from you, Rudy?

Have heard many stories as to how hard Cliff Harrison works for the National Association of Manufacturers in New York. Your correspondent expects to check up on Cliff when he soon takes a business trip to that city; he will report to you later.

The best of luck to you all during this year.

Class of 1934

L. H. Eichelberger, Correspondent
1600 N. Hilton St., Baltimore, Md.

Since the January issue, Bob has passed on to me a few more slips of address and occupation changes. These I again pass on to '34 BULLETIN readers in lieu of better column material, of which I have none.

Don Culver is doing test maintenance work for Philco Radio and Television Co. in Philly. His residence is 1029 Spruce St., that city.

Clinton Miller is located in the Industrial Sales Department of Devoe & Raynolds in Brooklyn, N. Y., and is staying at the Hotel St. George—also in Brooklyn.

An engineering assistant with Public Service Electric & Gas Co. is Franklin Geiger—works at 80 Park Place, Newark, N. J., and lives at 178 Overlook Ave., Hackensack, N. J.

H. C. Martin is with Wilson Products, Inc., of Reading, Pa., in the capacity of chemical engineer. His residence is the Y. M. C. A.

Hank Holler now with Household Finance Corp., 39-01 Main St., Flushing, N. Y. His home address remains the same.

In Dayton, Ohio, as special agent with the American Insurance Co. in the Columbia Bldg., is Winthrop Voorhees. His mail should be addressed to him at 2419 Malvern Ave.

Hal Silimperi is an analyst for Bethlehem Steel in their main lab in Bethlehem. Residence is 217 W. Broad St.

To further add to information in the last issue: "Gene" Wildman has left G. E. and is now an air conditioning engineer for Gulf Engineering Co.—916 S. Peters St., New Orleans, La. Mail to residence: 838 Lowerline St.

From a trickle over the grapevine I hear Bill Lubbers is still with Westinghouse but located now in Washington, D. C., having been transferred from Pittsburgh—more later when I hear further.

I just dare any of you birds to write me a bit of information concerning even one of our class—something about two would be too much at once to even dream of.

If any one did take up the dare I believe I would get Bob to insert in the column an "in memorium" notice for the writer would never survive the effort.

My only and severest critic—so far—Carl B. Peters—has yet to contribute anything in writing, even something sarcastic—what a name for a memorium.

Class of 1935

L. P. Struble, Correspondent
530 Academy St., Scrivickley, Pa.

Dick McClintic came to the front with a six-page letter this month. Excerpts from the same follow:

Ham Reidy is now in Chicago in the sales department of the Bethlehem Steel Co., and is specializing in the use of wire in all its forms. He was here in Johnstown a couple of months ago and I ran into him quite by accident.

Carl Collander started working for the New York Telephone Co., living in Brooklyn with Dan Ivins, also with the same company. Last month Carl accepted a position with the Keystone Drawn Steel Co. in Spring City, Pa.

Roy Enscoe crossed everybody up and got his diploma and then landed a job with the Koppers Company in New York City. He is preparing himself for sales work. At present he is living at his home in Port Washington.

Roy Case started working for the Standard Oil Company in Philadelphia. When Standard started leasing its stations to the managers, "Skipper" got out. He is now working in Dayton, Ohio, for Airtemp, Inc., a subsidiary of Chrysler Motors, specializing in air conditioning.

Connie Ackerson was working for G. E. in Schenectady. He was married a little over a year ago.

As for myself, I started working at the Homestead Steel Works as an observer in the metallurgical department after graduation. In March of this year I was transferred to the industrial engineering department and sent here (Johnstown) to what is known as the Lorain Division. We specialize in track work of all kinds here, crossings, frogs, and switches, for both steam and street railways.

Thanks a lot Dick for all the "dope." I was glad to hear from you and as you can see, am using most of your letter to fill up this column. Dick's address is 127 Arlington St., Johnstown, Pa.

Bud Foscoe made himself known by writing from Kansas City, Mo. He is living at 1301 E. Armour Blvd. Bud writes as follows:

I was married on June 6 of this year to Doris Lawrence of Bethlehem. I am employed by the Community Telephone Company.

Occasionally I am able to spend a few hours in Bethlehem. About a month ago I spent an evening with Milo Meixell, C. E. '34.

Now and then I hear from Francis Blanchard, M. E. '35, who, as you know, is with the General Chemical Company in Buffalo. His residence there is 100 Hubbel St.

Thanks for the news, Bud, and congratulations from the class as a whole on your marriage.

Class of 1936

R. B. Picking, Correspondent
Box 2067 Yale Station, New Haven, Conn.

Johnny Kornet finally broke through with a word. After receiving a few promises from John, he finally has dropped me a postcard. Part of what he says follows:

I'm still working at the R. K. Laros Silk Co. on Broad St., and think industry has college beat all hollow, what with examination week coming on, on the South Side of this dear old city. Living here, I enjoyed the football season and am enjoying the wrestling season and other college activities without the evils of registration fees and exams.

I can't tell you an awful lot about our colleagues. Bill Smith is in Bound Brook with Calco Chemical. George Diekover is in Aruba, D. W. I. with St. Oil, and Fran Stemp is in Detroit with Chrysler Motors.

Johnny's address is 105 E. Market St., Bethlehem.

Do you know where Walt Crockett is staying, John? I've had a card from him, but the postmark provided Bethlehem and nothing more.

All the records have been smashed! Walt Nutt wrote a two-page typewritten

letter from Quackenbush Co., Paterson, N. J., and there is so much news in the letter that I am going to have the whole letter rewritten for you.

QUACKENBUSH Co.
Paterson, N. J.

31 Maple Place
Clifton, N. J.
January 17, 1937

Dear Bob:

Sorry for the long delay in answering your inquiry, but the Christmas season in the retail game is no time for engaging in extra-curricular activities. Quackenbush Co. is a department store and is one of the members of the Allied Stores Corporation. It is a fine company to work for although I haven't as yet accustomed myself to working all day Saturday. Since the first of the year we have been working Sundays also, closing the books, etc. By the way, since your letter appeared in the November BULLETIN, I have been promoted to the position of credit and collection manager. Which is all very encouraging; but I still have visions of getting an engineering job.

Now for some news about some of the other boys. I am well posted on the whereabouts of all the D. U.'s, so I'll start with them. Saw Bob Eichner at Christmas. He has been transferred from New York City to Schenectady (sp.?) by General Electric. His only complaint is that it is harder to commute to Bethlehem from way up there. Bob has revealed a hitherto unknown talent. He has joined a little theater group in S. J. and is spending his evenings behind the footlights.

Sid Herbert stops in to see me rather often. He is with the American Brass Co. in Waterbury, Conn., but he comes home for a weekend rather often. He and several other fellows have an apartment there and Sid is sporting a sleek grey Pontiac convertible coupe. His duties in Am. Brass are in the Chem. Lab., so if your bathroom pipes leak blame Sid for not removing all of the impurities. I don't have his new address but the Y. M. C. A. will forward all mail. And by the way, Bob is at the Y. M. in his town.

Jim Hnyck was over to see me last week. He is at the college of Physicians and Surgeons in New York City and is living at Bard Hall, which is on Haven St. He claims Lehigh was a snap compared to Med. school, but I attributed that to the fact that he was an Arts man. He announced his engagement during Christmas vacation to Miss Elmira Francisco of Dumont, N. J. Elmira is a graduate nurse and I'll bet Jim is figuring on cutting down office expenses.

I stoppea in to see Pat Langdon on New Year's day but he was up in Vermont climbing mountains with the Appalachian Mountain Club. Guess Pat needs a substitute for that campus cross-country course. Pat lives at 37 Cambridge Place in Brooklyn. He has his own company at 116 John St., New York City. The Metal Industries Publishing Company. Pat is studying navigation at the Downtown A. C. and, with Bob Minor, ex-'37, is planning to buy a yacht in the Spring. Some rise to success, eh?

Last but not least, the tennis twins, Johnnie Dietz and Earl Gerlach are living in Summit and working for Western Electric. Johnnie lives at 76 Mountain Ave., and Earl lives at 72. Johnnie and Bunny Austin are playing basketball for the Summit Y.

I saw quite a few of the boys at the Lafayette game. Ted Davenport is with the Suburban Engineering Co., and may be reached in care of that company in Middletown, Conn. He is building a Sewage Disposal plant up there. Oh yes, he had that beautiful gal from Washington at the game. Guess R. O. T. C. camp was a good investment.

Haven't seen Fred Sharpe since we were at Camp Dix last summer but at that time he was planning to work for Babcock and Wilcox in New York City. And Joe Brown, who was with us, is working in a Chem. Lab. in Cleveland.

Saw Bill Lotz at the game. He is working for his dad, who is a contractor in Philly. And Paul Settle was there with his wife. He's with the Penn. R. R. By the way, remember "Settle's System of Stationary Soccer?"

That's all for this time. Best of luck to you and all the rest of the class.

WALT NUTT.

Settle! What do you mean getting married on us. That makes you close to number one in our class.

I attribute it to "Settle's System of Slinging the Slush." How about that, Mrs. Settle, and may we have the details?

Best luck to all.

PROFESSIONAL CARDS

ALEXANDER POTTER, '90
Consulting Engineer
Hydraulics, Sanitation, Concrete Structures

50 Church St., Telephone
New York City Cortlandt 7-3195 6-7

New York City 51 East 42nd St.
VISSCHER & BURLEY
Architects

J. L. Burley, '94
Rezin Davis Svend B. Sommer

New York City Singer Building
149 Broadway

WILLIAM C. MAYER, B.S., '15
LL.B. New York Law School
Counsellor at Law

Washington, D. C., 815-15th St., N.W.

WATSON, COIT, MORSE &
GRINDLE

Attorneys at Law and
Counselors in Patent Causes
Robert C. Watson, '13

Washington, D. C. 936 G Place, N.W.
National 1100

BALDWIN & WIGHT
Attorneys
Patents, Trade-Marks, and Copyrights
Donald M. Wight, '23

Cortland 7-1080, Cable: EQUIPPER-NY
COLLOID EQUIPMENT CO.

50 Church Street
New York City
A. T. Ward, '13 H. L. Bullock

PIERCE MANAGEMENT
Engineering Consultants and Mine Managers
Anthracite — COAL — Bituminous
A successful background in the practical solution of difficult engineering and management problems.

Scranton Electric Building
Scranton, Pennsylvania

State Mutual Life Assurance Company
of Worcester, Mass.

Inc. 1844
Presented by
ARTHUR H. LOUX, '35
744 Broad Street
Newark, N. J. Market 3-2717

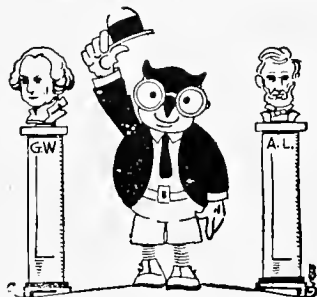
Newark, N. J. 26 13th Avenue
Mitchell 2-2776

GREEN & GREEN
Counsellors at Law

David Green, '22

Back of It All

Greeting you for the month of presidents, it is only logical that we begin the issue with a guest editorial by Cad-



wallader Evans, president of the Alumni Association, who brings out some interesting information on the loyalty of alumni as well as the objective of the current fund drive.

* * *

The cover this month, snapped by Dave McCaa, is an infra-red photograph taken from the "Lookout." In the foreground can be seen the Lehigh Library and spires of other campus buildings while the background gives actual details of the Blue mountain, available only through this type of photography.

* * *

And before we forget it, the January cover, a snow scene of Packer Hall, came from the camera of our own Johnny Maxwell and credit lines for its publication were inadvertently omitted from the past issue.

* * *

To Art Ward and Pat Pasolli goes unusual credit for the entire discovery and development of the article entitled "Proud Heritage" which opens this issue. The idea came to Ward while considering some Lehigh-Army connections and he communicated with Pasolli. The result was the current article, based on research, and bringing new light on a subject which we believe will be new to most Lehigh men.

Additional credit goes to the Military Academy itself which aided by supplying information and photographs for the story.

* * *

For those interested in the financial set-up of the BULLETIN we feel it advisable to report at this time that the in-

crease in advertising has made necessary the increase in size to 44 pages. This is just 4 pages short of the largest BULLETIN ever published (Packard Dedication Issue—Nov., 1930) and



while the variance in national advertising will necessitate a reduction in the number of pages next month, it is hoped that the all-time record can be broken within the year.

* * *

The hardest job of reporting in connection with the work of Lehigh firms is in keeping up with their projects. When one building is completed a bridge is being fabricated somewhere else and before that is done another alumnus is busy in the construction of a subway.

Consequently we present an article on the Golden Gate bridge just prior to its opening, some four months hence but through the help of Bethlehem and Roebling engineers the picture has been made as accurate as possible and an attempt has been made to describe the principles of construction without delving into the mass of details that accompanied the planning and fabrication.

* * *

The series of articles on the Chemistry Laboratory drive continues with Executive Secretary Cornelius' report of the success of the campaign as it reaches the "on the road" stage. If there is one thought that University authorities want driven home it is the need for this addition both to provide adequate space for equipment already on hand and for the already-too-large number of students working in the present quarters.



* * *

In scouting through the class columns for this month we call particular attention to the work of "Mac" Hall, correspondent for the class of 1921 whose home is in Constitution, Ohio, close to the Ohio river.

Even as the flood waters were rising near his home, "Mac" got out his article and gives a splendid "location" story of the flood as seen from that point. How the copy managed to reach us in time is something that only Mac can answer.

* * *

Sports enthusiasts will have a new picture of Lehigh's teams next month when Robert Moore, an undergraduate sports writer will take charge of "The Sport Review" pages for the BULLETIN.

Moore has an interesting sports style of writing and a good insight into the victories and defeats of the Lehigh teams which he covers personally.

DIRECTORY OF LEHIGH ALUMNI CLUBS

Bethlehem (Home Club), P. J. Ganey, '16, (P); L. J. Bray, '28, (S), 1920 Kenmore Ave.

Boston, A. D. Bach, '17, (P); H. Lewin, '26, (S), 17 Pleasant St., Malden, Mass.

Central New York, Gordon Kent, '07, (S), The Kent Co., Rome, N. Y.

Central Penna., J. C. Kelley, '28, (P); H. C. Towle, Jr., '28, (S), P.O. Box 404, Progress, Pa.

Chicago, R. H. Potts, '22, (P); A. Lehr, '29, (S), Bethlehem Steel Co., Wrigley Bldg.

China, L. A. Fritchman, '18, (P); T. C. Yen, '01, (S), Ministry of Railways, Nanking, China.

Cincinnati, L. T. Rainey, '99, (P); W. S. Major, '24, (S), 801 Chamber of Commerce Bldg.

Detroit, R. J. Purdy, '28, (S), S. S. Kresge Co., 2727 2nd Blvd.

Maryland, Thomson King, '08, (P), W. E. Miller, Jr., '30, (S), 211 Hawthorne Rd., Roland Park, Baltimore, Md.

New York, L. E. Wilson, '14, (P); Wm. Wirt Mills, '87, (S), 30 Church St.

Northeast Penna., John A. Hart, '12, (P), Mayfield, Pa.

Northern New Jersey, J. H. Hunoval, '31, (P); H. F. Casselman, (S), 331 Turrell Ave., South Orange, N. J.

Northern Calif., R. H. Tucker, '79, (P); R. C. Moore, '27, (S), 705 Walla Vista Ave., Oakland, Calif.

Northern N. Y., J. C. Ryan, '01, (P); Nelson Cox, (S), Colonial Apts, No. 310 N. Church St., Schenectady, N. Y.

Northern Ohio, B. M. Kent, '04, (P); J. C. Croxton, '27, (S), 2668 Berkshire Rd., Cleveland Heights, Ohio.

Philadelphia, J. J. Shipherd, '21, (P); Moriz Bernstein, '96, (S), 2130 Estaugh St.

Pittsburgh, Harry Eisenhart, '03, (P); E. Stotz, Jr., '20, (S), 801 Bessemer Bldg.

Pottstown, W. R. Bunting, '07, (S), 349 Highland Rd.

Southern New England, C. H. Veeder, '86, (P); J. W. Thurston, '98, (S), 168 N. Quaker Lane, Hartford, Conn.

Southeast Penna., O. V. Greene, '22, (P); George Potts, '24, (S), 536 Court St., Reading, Pa.

Southern Anthracite, H. R. Randall, '23, (P), Rhoads Contracting Co., Ashland, Pa.

Southern Calif., Robert Campbell, '18, (P); A. D. Shonk, '27, (S), 904 Coronado Drive, Glendale, Calif.

Trenton, J. H. Pennington, '97, (P); E. L. Robinson, '24, (S), 201 Woodside Ave.

Washington, D. C., W. A. Draper, '07, (P); S. L. Gregg, '31, (S), 3614 Connecticut Ave., N. W.

Western New York, W. H. Hunton, '20, (P); G. B. Henry, '25, (S), 1208 Northland Ave., Buffalo, N. Y.

York, Pa., J. L. Rosemiller, '19, (P); S. H. Shipley, '22, (S), Country Club Road.

Youngstown, Ohio, W. F. McGarrity, '31, (S), 162 Upland Ave.



THIS COULDN'T HAPPEN—*without Alloy Steels*

● He's come in a fast—light—strong—economical motor car.

He's off in a fast—light—strong—economical plane.

He takes for granted the revolutionary development of modern transportation.

Yet the speed and comfort of his car and his plane—their tremendous strength per pound of weight—their economy of operation—their sturdiness and long life—are due almost entirely to the proper use of specially developed alloy steels—many of them pioneered by Republic metallurgists.

Intensive work and broad experience with alloy steels of all kinds have made Republic their largest producer.

But Republic also is a leading factor in the production of fine carbon steels and other products in which uniform quality is so important. And through such subsidiaries as Berger and Truscon, Republic reaches the consumer direct with scores of additional fabricated metal products.

Republic representatives have a wide knowledge of steels and their profitable application to industry. Call any Republic office. They are located in all principal cities.



REPUBLIC STEEL CORPORATION

GENERAL OFFICES: REPUBLIC BUILDING, CLEVELAND, OHIO



Approximately forty cents out of every dollar that Republic Steel takes in, is redistributed in the form of wages among 49,789 employees in thirty-nine plants in twenty-seven different cities. These employees, with their immediate families, number close to 200,000 people, who through their individual purchases help to support thousands of others in their respective communities.



Steel for Every Purpose